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THE HANDBOOK SERIES

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GOVERNMENT OWNERSHIP OF COAL MINES

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COMPILED BY
JULIA E. JOHNSEN

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EXPLANATORY NOTE

Literature dealing with the coal problem in its various social, economic, and industrial phases is voluminous The present Handbook is centered on the aspect of coal as a public resource and considerations for and against the government entering upon a more direct trusteeship in the immediate interests of the people as against private business and ownership. It is intended primarily for debaters and for this purpose material and bibliography have been arranged into general, affirmative and negative discussion, but it will be found of interest also to the general reader, investigator and student. Separate consideration is given to government control or regulation of coal prices. Considerable attention was given to this aspect during the late war, but it is felt that any interest must relate more specifically to times of peace, as a measure, in particular, of curbing unstable prices and profiteering, and it is confined to this as far as practicable.

The question of government ownership and operation of the coal mines has been considered of sufficient importance to merit the inclusion of the somewhat full bibliography. This is for the most part selected from a bibliography prepared by the Bureau of Industrial Research, 112 E. 19th Street, New York, to which bureau grateful acknowledgment is made. Selections for reprint have been made impartially from a variety of points of view from the best available material, and it is hoped they will be found sufficiently representative to afford the student and reader a good basis for wider investigation.

JULIA E. JOHNSEN

October 16, 1923

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BRIEF

RESOLVED: *That the Federal government should own and operate the coal mines.*

AFFIRMATIVE

I. A change is demanded by the present abuses in the coal mining industry.

A. The public welfare is constantly menaced by conditions relative to production and distribution.

1. The supply of coal is uncertain and inadequate.
   a. There is seasonal operation.
   b. When heavy production is required transportation facilities are inadequate to handle it.
2. Inordinately high prices prevail.
   a. Markets are manipulated and advantage is taken of labor troubles and other excuses to boost prices and keep them up.
   b. Consumers are forced to pay any price demanded for their supply.
3. There is appalling waste.
   a. Only the "easy" coal is mined in order to produce maximum dividends.
      (1) Thirty-five to 50 per cent of the coal is wasted.

B. Labor troubles are disorganizing the industry.

1. The miners are underemployed.
   a. Inefficient methods of operation and marketing prevent full time work.

b. Although nominally well paid this gives them a practically low wage.

2. There are frequent strikes.

3. There is an unnecessarily high accident and death roll.
   a. Strict observance of safety measures is disregarded in the desire for better profits.

4. Coal is mined in some fields under an autocratic system that is a disgrace to civilization.
   a. Operators employ spies and gunmen.
   b. They use their wealth and political power to prevent interference.
   c. There is frequently open civil war.

C. The coal industry has become a monopoly used for the aggrandizement of the owners.

1. It is virtually owned by railroads and large corporations.

2. The mines are operated for absentee owners as against service to the people.

3. Private ownership was designed to promote equal rights and opportunities, not to concentrate control of resources in selfish and unscrupulous hands.

4. The superior rights of the people in a basic natural resource should be considered.
   a. Coal is the birthright of the people and of posterity.

II. Government ownership and operation of the coal mines would be a desirable solution.

A. It would be a public benefit.

1. The community interests of safety and welfare would be ensured by continuous coal.

2. There would be complete publicity in costs and distribution.

B. Economies would be effected.
   1. Prices would be regulated in the interest of the consumer.
      a. There would be diminished cost of production.
         (1) The industry would be concentrated on the most profitable fields.
         (2) Royalties paid to owners will cease or be used for the government.
         (3) Various sources of waste will be eliminated.
         (4) The scramble for profits will be checked.
      b. The government could then institute economies in common buying and selling.
   2. The government could supply coal to state undertakings.
      a. The navy, government buildings, etc.

C. It would allay the labor problem in the industry.
   1. Give the miner steady employment and fair wages.
   2. Remove the unrest caused by capitalist exploitation.
   3. Make better provision for his health and safety.

D. It would conserve resources.
   1. Over-development will be checked.
   2. Waste will be prevented.
      a. Good and inferior coal will be worked together.

E. There is no other adequate remedy.
   1. Relief by competition has been tried repeatedly and found impossible.
   2. Regulation has been ineffective.
   3. A super-syndicate would be impossible.
      a. It would mean control from Wall Street.
      b. It would be costly to the consumer.

III. Government ownership and operation would be feasible and practicable.

A. The important mines could be taken over first and others could be acquired gradually.

B. Compensation to the present owners could be based on a fair and non-inflated valuation by impartial experts.

C. A bond issue could be made which could be repaid from profits.

D. Organization could be made after any approved plan such as that put forth by the United Mine Workers, the British Commission, the Plumb Plan League or adapted from actual experiments abroad. In particular there could be
   1. A Secretary of Mines in the Cabinet.
   2. A Federal Commissioner of Mines.
   3. The establishment of national, regional, and local administrative councils in order to avoid bureaucracy and over-centralization.

E. Operation would be practicable.
   1. Operator experts could be chosen from the Department of Mines and from present operators.
   2. The personnel of the miners would remain unchanged.

3. Mine workers could be given equal representation to administer affairs.

F. A permanent fact-finding agency could be established to afford full publicity and control decisions of policy.

G. Cooperation would be established between the various mines.

1. Knowledge would be pooled.

H. The government has been successful in other undertakings.

1. The Panama Canal.
2. The reclamation service.
3. The postal service.

NEGATIVE

I. Government ownership and operation of the coal mines would be impracticable.

A. The cost would be excessive.

1. It would cost anywhere from $3,000,000,000 to $4,500,000,000 to take over the coal mines of the country, making allowance for good-will and other vested rights.
2. Even if only part of the mines are taken over the valuation would be far beyond the equity the owners have put in.
3. The government would have to take over new coal mines as discovered.
4. Interest bearing bonds would add greatly to the cost of government.

B. Money would be invested at great risk.

1. There would be mounting costs due to exhausted seams.
2. There would be the menace of destruction through fire and flood.

C. Operation would be impracticable.
   1. It is a scattered industry.
      a. Bituminous mines exist in thirty states.
      b. There are over seven thousand individual coal producers or companies.
      c. No uniform standard can be applied in operation, for the seams are of different depths, inferior or superior, etc.

D. Government ownership of the coal mines would lead to ownership of other mines, oil wells, natural gas, etc.

II. It would be undesirable.
   A. There would be no economic advantage.
      1. The profits are not large.
         a. The companies earned painfully small dividends during recent years.
         b. There were many forced sales and receiverships.
      2. It would be more expensive.
         a. There is greater waste under government control.
            (1) Government operation of the railroads caused a heavy deficit.
            (2) During the last year of operation of the merchant marine the loss ran higher than $1,000,000 daily.
            (3) The fact that deficiencies can be met out of revenue is a temptation to uneconomical working.
         b. The withdrawal of taxes would make a deficit that would have to be met by other taxpayers.

3. The industry could be more advantageously carried on by competitive methods.
   a. Natural competition means a low price to consumers.

B. No other advantage would be gained.
   1. There would be no gain in efficiency.
      a. The present owners are cognizant of the most efficient and economical methods of extraction, preparation and sale.
   2. It would not settle labor difficulties.
      a. Miners will continue to demand better pay, shorter hours, etc.
      b. The government would enforce its own wage scale.
         (1) It would be backed by police power.
      c. Unionism in the mines would be broken up.

C. Ownership and operation by the government would be undesirable.
   1. Government undertakings are slow, wasteful, and incompetent.
      a. Government officials do not show the same zeal as private operators.
         (1) They do not have the incentive of competitive conditions.
      b. There is excessive red tape.
   2. It would create a formidable bureaucracy.
      a. It would be controlled by politicians.
      b. It would be impersonal and subject to autocratic abuses.
      c. The miners would have no more influence in their calling than have postal employees.

3. Taking over the mines would interfere with the rights of private property.
4. It would retard the development of new resources.
   a. Private capital would not venture into undeveloped fields liable to be taken over.
   b. The government would not risk its money in speculative enterprise.

III. A change in ownership and operation is not called for.

A. The coal industry is neither unwisely nor inefficiently conducted.

1. Its services to the public compare favorably with other industries.
   a. The abuses are less than would be under government ownership.
2. Charges of profiteering are not justified.
   a. High prices are due to high wages, government interference, independent companies, and risks of business.
3. Coal shortages are due to seasonable demand, insufficient cars, etc.
   a. The present mines have an overcapacity of 40 per cent.

B. There is no danger of exhaustion.

1. There is sufficient bituminous coal to last six or seven thousand years.

C. The industry can be stabilized by regulation without the burden of owning and operating the mines.

1. The state can exercise supervision to see that resources are not wasted but are use to the best advantage of the community.

2. Over-development can be cured.
   a. New lands could be held in reserve until the demand has overtaken the supply.
   b. The industry could be forced to bear the cost of unemployment.
      (1) This would dry up surplus mines and drive out irresponsible speculators.
      (2) It would release thousands of men for other work.
3. Distribution can be governed by present laws.
   a. It is largely a matter of car supply, which can be regulated by the Interstate Commerce Commission.
   b. Seasonal fluctuation can be regulated by storage facilities or by other means.
4. A brokerage tax will regulate sales.
5. In the hands of a comparatively few well-financed corporations economies and better organization can be attained, and more permanent equipment can be installed.
6. Full publicity can be secured under the present ownership.

JAN 1925

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SELECTED ARTICLES ON GOVERNNENT OWNERSHIP OF COAL MINES

INTRODUCTION

The vital bearing of coal upon our lives has come to be emphasized by disturbances during recent years within the industry. It has emerged in the public mind from a private industry to one where the economic, social, and industrial effects vest it with a paramount public interest. The public temper has been sorely tried by strikes and near-strikes, by coal shortages and peak prices. It has been held in the recurrent fear of an interruption of its essential comfort and industries, and an impotent protest against prices that despite past investigations show little tendency toward alleviation.

Within the industry, fundamental but by no means the sole cause of conditions, has long been enacted the familiar struggle of two opposing social forces, labor and capital. The miner is restive under an unsatisfied standard of living, onerous conditions of work, menaces to his security, social injustice. Mine owners and operators, who by their hold on this resource wield a large social influence, are engrossed in economic, not social forces. To the one is the vital attempt to reach a higher level of living; to the other privilege and established rights are to be upheld at any cost.

The consideration of government ownership of coal mines finds its primary justification in its essential nature as a public utility and natural monopoly. The first concern of a public utility is public service. Broadly speaking, its supporters are those who accept nationalization on principle, conservationists who feel that the government is the proper custodian of natural resources,

those who see the necessity of a radical step to end the evils that have grown up under private ownership, and those who see in government ownership the least objectionable of alternate imperfect or untried remedies. Of the third class are the United Mine Workers of America, who are assuming a leading part in the present advocacy of a change of this nature. In 1921 this organization created the Nationalization Research Committee charged to study the nationalization of the mines and to submit a plan. They have endeavored to stimulate public discussion and have been insistent in the demand for a permanent fact-finding agency. In part as a result of this the late President Harding established, on September 22, 1922, the United States Coal Commission, a fact-finding, non-administrative body, instructed to ascertain and report to the President and Congress the facts about the coal industry. This commission is still conducting its inquiries. The Nationalization Committee have recently submitted to the Coal Commission a proposal for the regulation of investors' profits and for the gradual acquisition of the mines over a period of fifty years.

The movement for government ownership is also supported by tendencies abroad. In 1919 the British Coal Commission published in its report the Sankey recommendation for nationalization of the mines, the dissenting members of the commission suggesting amalgamation under government control. The International Miners' Congress held at Geneva in August 1920, passed a resolution for the nationalization or socialization of the mines in all countries. It went so far as to advocate, in case of aggressive military policy, either a general world strike or the boycotting of the country concerned. The leading opposition to government ownership comes from the mine owners, capitalists and conservatives, who see investments menaced and private enterprise checked, and those who distrust widening governmental and political control.

Outside of governmental ownership regulation in var-

ious phases, and in particular in prices, is felt to be called for. Director General of Railways, Walter D. Hines, in 1919 put the case for price control succinctly when he said, "The great danger that confronts the public in this matter is that any shortage in production or in transportation may be exaggerated so as to serve as a pretext for high increases of coal prices which in my opinion are already high generally speaking." The Fuel Administration, one of the important price-fixing agencies during the war was created in September 1917, and suspended operations early in 1919. Since then there have been several attempts, notably by Senators Frelinghuysen, Calder and Kenyon to pass Federal legislation to protect the consumer from extortionate charges and to stabilize or otherwise regulate the industry. The state of Indiana has attempted to carry out its own price control by establishing, in 1920, its Special Food and Coal Commission for fixing prices and regulating the industry.

Julia E. Johnsen

October 16, 1923

GENERAL DISCUSSION

COAL PROBLEMS AND PRICES[1]

Coal is not only the foundation of America's industrial life, it is also the base on which civilization is built. No nation can hope to be supreme among the countries of the world, in war or peace, if it lacks a bountiful supply of coal. We often read, or hear it said, that this or that business is the "key" industry of a nation, but the truth remains that there is only one "key" industry —coal mining.

Coal is the ancestor of more useful products than any other element of nature available to man. From the time we rise until the day is done, we maintain an intimate association, either with coal itself or one of its by-products. The leavening agent in our bread and the gas we bake it with are from coal; so are the agents that tan our shoes, and that vulcanize the rubber in our automobile tires. We are indebted to coal for the various forms of ammonia that go into fertilizing, refrigerating, electric batteries, and household uses; for aspirin, salicylic acid, and many other cures for common colds; for elements used in manufacturing insulating coatings, phonograph records and pipestems; for benzol, one of the best available fuels for automobiles and internal-combustion engines; for food preservatives, moth balls, and disinfectants. While coal furnishes us picric acid and trinitrotoluol, it carries locked in itself synthetic oil of wintergreen and the delicate flavoring extracts and perfumes.

When the World War was being planned, German statesmen devoted their time largely to studying the coal

[1] By Floyd W. Parsons, founder and for many years editor of Coal Age. World's Work. 42 : 374-80. August, 1921.

map of Europe. When hostilities commenced, the strategy of the Teuton generals centered about possession of the coal-fields of France and Belgium. Great Britain's preeminence in world affairs was built on her surplus production of coal. The biggest problem in Great Britain today is how to meet American competition in the export of coal. England's coal has given power to her ships and economic balance to her trade. The future of the British coal problem is closely linked with the futures of the British food and manufacturing problems. For example, in past years Great Britain supplied herself with cheap beef by exporting coal to Argentina and bringing back the carcasses of cattle.

History shows that for several centuries—in fact, since the beginning of a coal industry—the consumers of coal have condemned the practices of the so-called "coal barons," or producers of this essential product. The cry, "nationalize the coal-mines," has been heard in English politics for more than a generation. The fight to accomplish this aim in England has reached the point where it threatens to become a national disaster. Even though the latest strike be ended on terms fairly satisfactory to all sides of the controversy, it is a fair presumption that the settlement will be only a temporary one, provided the American coal industry is permitted to go forward without undue restrictions being placed on it by the government or by labor. Even though coal miners in the United States receive double the wages of British miners, American coal is produced at about one-half the cost of English coal. American miners using machines produce from two to three times as much coal each year as do an equal number of British miners using mostly hand methods. While this condition prevailed prior to the war, British exports of coal were not seriously affected, because America lacked ships as well as an export policy.

Just as the coal problem in Great Britain has become the most acute and difficult question confronting tha

government, so the coal problem in the United States is tending to become our most important political and industrial issue. Before getting directly to the point of the discussion, let me clear the way by laying down a few fundamental facts. Four-sevenths of all the probable coal in the world lies in the United States. Canada has one-seventh, China nearly one-seventh, Germany one-seventeenth, and Great Britain one-fortieth of the total. We have in the United States upward of fourteen hundred billion tons of the various grades of so-called "soft" coals. This supply of bituminous coal should last us for several centuries. In addition, we have enough anthracite coal (practically all in the state of Pennsylvania) to last from fifty to seventy-five years, on a declining production.

Gaging the industrial development of the different nations by the per-capita consumption by the people, it is interesting to note that here in the United States the consumption of coal per person is 6 tons annually; in the United Kingdom it is 4.9 tons per capita; in Germany, 3.4 tons; France, 1.4; Italy, 0.34, and Russia, 0.18. Previous to the war, Belgium consumed about 4 tons per capita, which fact indicates the intense development of that small nation's industrial life; indeed, the eight million people in Belgium use annually nearly as much coal as the one hundred and seventy million people in Russia, exclusive of Poland. While the miner in the United States produces better than eleven hundred short tons of coal annually, and ranks first in the matter of individual output, the Japanese miner produces an average of only one hundred and fifty-five tons each year, and ranks last. Here in America, coal is produced in twenty-eight states by approximately six thousand mining companies employing about seven hundred and fifty thousand men in and about the mines.

It is impossible to discuss coal-mining prices and problems without first pointing out the two besetting sins of the industry. The first, if not the more important,

is the seasonal operation of the mines. The seasonal nature of coal mining is more responsible for the industry's labor troubles, and for the dissatisfaction on the part of the miners, than any other one thing. No class of workmen ever have been satisfied with seasonal employment. Not long ago, American miners demanded a six-hour day; not because they were dissatisfied with the number of hours they had to work, but for the reason that they were determined to bring about an equalization of the work. If the men were given six days' employment at a fair rate of wages, there would be little discontent among the rank and file.

Stabilization of the coal industry, particularly the bituminous industry, is no easy problem. Lumber improves with storage; shoes and textiles can be easily warehoused; the production of iron and steel plants can be stored during a slack season. In practically all these cases, the matter of storage depends on the ability of the producing company to finance their operations until demand has caught up with production. The storage possibilities in coal are limited. Although many grades of coal will stand storage, none of them are improved by it, and quite a few kinds of coal deteriorate through storage. It would require sixteen times as much space to store the nation's yearly production of bituminous coal as would be needed to store the nation's supply of iron and steel products.

Since 1890, the bituminous coal mines in the United States have worked only 83 per cent of a normal three hundred days each year. In 1914 the mines worked only one hundred and ninety-five days. In 1919 the average days worked was about the same as in 1914. A careful investigation has shown that the cost of mining coal at one colliery will vary as much as 60 cents a ton from one month to another, depending on the number of hours the mine is idle. A manufacturing plant may be closed and only a watchman left to guard it, but in coal mines, the forces of nature work unceasingly, and as a result the cost of upkeep continues at a high rate, even if coal

is not produced. During the summer months, the production of bituminous coal in the United States often falls as low as twenty-three million tons per month, while in the winter season the production of soft coal will average upward of fifty million tons per month. It should be plain, therefore, that any industry having more than one hundred idle days each year and a seasonal variation of 100 per cent in output, cannot be operated on an economical basis.

This failure to equalize the load in coal mining has still other effects that are far-reaching. The railroads of the country own approximately one million coal carrying cars. Coal furnishes about 34 per cent of the nation's total railroad tonnage. On certain roads the transportation of fuel amounts to 60 per cent of the total freight moved. As the business is now conducted, the so-called coal carrying lines must store thousands of their coal cars during the summer months. This practice Increases railroad expenses, for cars in storage not only afford no revenue, but they deteriorate rapidly during the period of disuse. In the fall months, when the coal rush commences, the railroads must gather together a small army of workmen, which force is subjected to expensive training in order to fit it properly to repair and handle coal cars.

The Anthracite Board

The history of anthracite mining should provide an interesting lesson for the bituminious coal industry. Prior to 1900 the hard-coal mines of Pennsylvania worked an average of only one hundred and seventy days each year. During the decade which ended last year, the average working time of the anthracite mines was two hundred and fifty-five days per year. This improved situation was a direct result of the Anthracite Board of Conciliation, a body composed of representatives of the operators and the miners, and created by President Roose-

velt during the difficult days of the hard-coal strike in 1902. The conciliation board, while only a common-sense court, has settled approximately six hundred and fifty disputed cases in eighteen years, and has established an enviable reputation as a just tribunal. The hearings before the anthracite board are informal in character and are marked by an absence of legal talent. A case is never brought to the board until the employer and the local mine boss have found that it is quite impossible for them to adjust the matter in dispute. While there have been a number of purely local strikes in the anthracite field, there has been no general strike of hard-coal miners since the board of conciliation was first organized.

Values Which Go Up in Smoke

The second sin in the mining and consumption of coal is waste. While this may be said of practically all industries, it is particularly true in the handling of our fuel resources. Practically all of our anthracite production is consumed in our homes. Of our annual bituminous coal output, 40 per cent is used for steam or industrial purposes, 27 per cent is burned by the railroads, 15 per cent is domestic coal, and the remaining 18 per cent goes for coking, exports, smithing, gashouses, and bunkering. Assuming that it is possible to obtain the by-products from only 25 per cent of the industrial coal and 50 per cent of the railroad fuel, through establishing central stations and electrifying; also that all the domestic coal can be coked first—we find that one hundred and ninety-five million tons of bituminous that is now burned raw should be coked. If but two-thirds of this tonnage can be subjected successfully to by-product practice, the saving would amount to something like $200,000,000 annually. The values which go up in smoke in the United States each year are nothing short of appalling.

The losses to the nation through coking coal in beehive ovens continue at the rate of millions of dollars each year. The total capacity of our coke ovens is approximately sixty million tons of coke annually, of which total nearly one-half comes from by-product ovens. The manufacture of by-product coke in the United States is a comparatively new business, the first ovens of this kind having been installed only a little more than twenty years ago. Prior to the war the Germans were the leaders in the practice of extracting the by-products from coal through coking. When the World War commenced, Germany was coking ten million tons more coal in by-product ovens than the rest of the world combined. This policy of the Teutons in extracting the highest possible value out of their coal supplies is largely responsible for Germany's supremacy in dyestuffs manufacture. One authority estimates our annual losses from coking coal in beehive ovens as follows: Tar, three hundred and twenty million gallons; ammonium sulphate, four hundred and thirty-six thousand tons; surplus gas, two hundred and forty billion cubic feet; benzine, sixty-five million gallons; and toluene, sixteen million gallons. The yearly waste of these same elements through firing raw bituminous coal in this country amounts to more than $400,000,000.

A four-foot seam of coal contains enough ammonium sulphate to fertilize the land above it for more than five hundred years. Assuming that one hundred pounds of ammonium sulphate are needed each year to fertilize one acre of cultivated land, it follows, therefore, that we are burning up each year in our beehive ovens enough nitrogen to fertilize eight million seven hundred and twenty thousand acres. An acre of wheat land treated with an application of one hundred pounds of ammonium sulphate will show an increased yield of at least seven bushels of wheat per acre. Therefore, if we carry this thought a little further, we find that the country's production of

wheat would be increased by more than sixty million bushels a year if the ammonia that is now wasted in our beehive ovens were saved and effectively used.

The absolute power of oil and coal over humanity may eventually be broken by scientific discoveries and engineering skill, but right now all the nations of the world are at the mercy of the present fuel industries. This being true, it follows that each and every citizen of the United States should take an active interest in the present practices of mining, handling, and burning coal. No matter where we live or what we do, the cost of coal is a heavy item in our budget of expenses.

CONTRAST BETWEEN HARD AND SOFT COAL INDUSTRIES[1]

In my former letter I had occasion to refer to the difference between the anthracite and the bituminous industries. It is a difference so sharp and yet so generally overlooked that anyone speaking of one industry is almost sure to be misunderstood by someone who supposes he is speaking of the other. To the man on the street coal is coal, or rather in the east, at least, coal is anthracite. Bituminous coal is bought by a relatively small number of people; except for the tithe of the output which is handled by retailers the great bulk of the bituminous supply is purchased by the agents of about fifty-five thousand corporations. In other words, 85 per cent of the soft coal is bought by less than 1-10 of 1 per cent of the population, and though the other 99 9-10 per cent of the people are largely affected by the price paid for that same coal in the form of higher prices for finished products—for coal enters into the cost of every product from "city" water or sugar to illuminating gas or electricity—their opinions are shaped primarily by what they themselves have to pay for domestic fuel. Domestic

[1] From letter of George Otis Smith, director United States Geological Survey, to Senator Walter E. Edge. 9p. mimeographed. May 20, 1921.

anthracite, on the other hand, directly reaches millions of homes in the United States and Canada. Its price has a direct, immediate effect on the consumer, for it touches his "pocket-book nerve." If he learns from the papers that "gas coal is being exported over seas" he thinks it is anthracite and blames the export demand for his difficulties, not knowing that practically no anthracite is exported, except to Canada. If he hears that the price of steam coal at the mine has fallen close to the cost of production he declares, "And my coal is costing me more than ever!" not realizing that what may be true of Pennsylvania bituminous prices and costs may not be true of anthracite prices and costs. If he reads that legislation is pending affecting the coal industry his opinions concerning the proposed measures reflect only his experiences in obtaining anthracite last winter.

And yet the two industries are radically different; for every man engaged in mining anthracite coal four are digging soft coal. The soft coal mines of the United States produce in a single day as much as the anthracite mines in a week. The one is a comparatively simple extractive industry; the other partakes of the nature of a manufacturing industry. The one is in large part carried on in small units, with simple industrial organization; the other is characterized by a compact, inter-connected organization and large units of operation.

Soft coal is mined in thirty states and in bewildering variety. The area underlain by coal reaches the enormous total of four hundred and fifty-eight thousand square miles, about four times the entire area of the British Isles. Our underground reserves of all coals lower in rank than anthracite are about three trillion, five hundred billion tons. Mining operations are conducted in forty-seven major fields, each of which has its own normal market, determined by the quality of its coal, its cost of production, and the transportation rates. The competition between fields is keen. Again, within each field producers are in active competition for the limited orders in times

of slack demand, and for the limited supply of cars when orders are abundant. Most fields are heavily overdeveloped, and the industry as a whole is so greatly overmanned and over-equipped that it seldom works more than two hundred and thirty-five days a year, and often less than two hundred days. We have, in fact, an excess mine capacity of two hundred and fifty million tons per year—about equal to the present output of Great Britain—and an excess labor force of one hundred and seventy-five thousand men. Beset by an irregular demand, with production and prices fluctuating violently from year to year and from season to season, the business of mining soft coal is an unstabilized industry with all the outward marks of intense and wasteful competition.

But whereas soft coal land is almost a free gift of nature over much of the United States, anthracite is a natural monopoly. Small amounts of anthracite or semi-anthracite are mined in Virginia, Arkansas, and Colorado, but from the national point of view anthracite means Pennsylvania anthracite. The anthracite measures of that state cover an area of four hundred and eighty square miles—about one-thousandth of the area of the soft-coal lands. The underground reserves of the region are now between sixteen and seventeen billion tons, sufficient at the present rate of depletion for not much over a century, and only 5-10 of 1 per cent as great as the underground reserves of bituminous coal and lignite. The anthracite lands were all bought up long ago. Production has reached a maximum and can hardly be increased over the present level of approximately ninety million net tons a year, except as prices for steam coals may make possible the reworking of the culm banks, which, however, contribute little to the domestic supply. The length of working year in the anthracite mines averages better than the maximum year in the bituminous mines.

Out of this natural monopoly has grown a close-knit business organization in which 75 per cent of the output is produced by a group of eight companies. (These com-

panies are the Philadelphia and Reading Coal and Iron Co., the Lehigh and Wilkesbarre Coal Co., the Lehigh Coal and Navigation Co., the Lehigh Valley Coal Co. (including Coxe Bros. & Co.), the Scranton Coal Co., the Hudson Coal Co., the Delaware, Lackawanna & Western R. R. Co., and the Pennsylvania Coal Co. (including Hillside Coal and Iron Co.). Their combined production in 1919 was 73.4 per cent of the total. The Susquehanna Collieries Co., until recently one of the railroad coal companies, is now grouped with the independents. Were it included, the 1919 tonnage of the railroad coal companies would constitute nearly 80 per cent of the total). Until recently all of these companies were closely affiliated with the railroads which serve the region and derive their principal revenue from the transportation of anthracite, and the majority of them are still so affiliated. These companies, known as the railroad coal companies, have long pursued a conservative business policy, a policy of stable prices, a general policy of settled relationships in which each company respects the sales territory of the others in that it takes care of its established customers in preference to reaching out for more business, the getting which might result in less reliable service to its older customers.

Restraining and limiting this natural monopoly in anthracite is the competition of bituminous coal. While as a clean and slow-burning fuel, anthracite always commanded a premium over the best of soft coal there was obviously a limit to the differential which the consumer would be willing to pay for his anthracite rather than adopt bituminous. In the west-bound anthracite movement the competition of lump bituminous coal of high quality was nicely adjusted. West of Pittsburgh and south of Washington more bituminous is sold for domestic use than anthracite and in this territory an inordinate rise in the price of anthracite would have simply driven more householders to use bituminous. But for the middle Atlantic and New

England states the anthracite region possessed not only a natural monopoly of the highest rank of coal but also the advantage of position; under present freight rates the rate on anthracite egg coal to New York city is 30 cents a ton less than the rate on the nearest good quality bituminous coal. In the matter of the small sizes of anthracite, which despite all the operators can do make up nearly 30 per cent of the commercial product, the competition of bituminous coal is all-controlling. The steam sizes are marketable at all for boiler room use only as an inferior substitute for the nearest available bituminous coal. The steam sizes can best compete with bituminous coal in the territory east and north of the anthracite region. This advantage of position is measured by a freight rate to New York city on steam sizes of anthracite 64 cents less than on bituminous coal.

The peculiar nature of the anthracite resource raises a host of social questions with which the Geological Survey has no direct concern. Charges have been made that the natural monopoly has in fact tended to become a business monopoly and that the monopoly has abused its power and increased the price of anthracite above what it would have been under active competition. Various decisions of the Supreme Court have construed certain interrelations of the railroads and the mining companies as violating the Sherman Anti-Trust Law. On the other hand the Federal Trade Commission in its Cost Report no. 2, page 86, (published June 30, 1919) could state: "The increases in price of anthracite coal since 1916 have on the whole been closely proportional to the increases in cost of production." It is perhaps a question whether a jury of disinterested observers from another planet, neglecting the consideration of the internal management of the industry and thinking only of its service to the public, would not conclude that the American people had been better served by the closely organized anthracite industry than by the wasteful competition of the

bituminous industry. Obviously questions such as these, concerning the price of a thing so necessary as household fuel, are such as no democratic government can ignore and live. They are, however, clearly beyond the scope of the work which Congress has laid upon the Geological Survey and I here express no opinion concerning them. The interest of the Geological Survey lies primarily with the resources, and from that point of departure we have been for forty years collecting statistics of production and more recently of the distribution and consumption of coal. In that study there has come to my attention some long-time and far-reaching facts about the business which are essential to clear thinking and just dealing. Reference to certain of these facts may help to clarify the situation and center attention upon the real issues involved.

Hard Coal Facts Which Are Sometimes Overlooked

Because anthracite is a fancy quality or luxury fuel and can bring fancy prices on the market it is profitable to mine it under conditions which would make the mining too expensive were the product bituminous coal. The anthracite mines are on the whole deeper than the bituminous mines; they are wet, involving the pumping to the surface of enormous volumes of water; the beds are faulted and folded to a degree which would prevent commercial exploitation in a bituminous field in the United States. Again, the greater care which must be devoted to the cleaning and sizing of anthracite before it is ready for use adds greatly to its cost. Comparison between anthracite and bituminous costs is often difficult because the wage rates in the two industries do not always change at the same time. It is not true that the lowest cost anthracite mine has higher costs than the highest cost bituminous mine, but it is true that the average cost of mining and preparing anthracite is from 50 to 100 per cent—perhaps in the long run about 80 per cent—greater than the average cost of mining bituminous coal.

A small yet widely prevalent cause of misunderstanding lies in the unit of measurement in use in different localities. In the anthracite region itself the universal standard is the gross ton of twenty-two hundred and forty pounds, and all f.o.b. mine prices are quoted on that basis. In most retail markets the unit is the net ton of two thousand pounds. A few eastern cities, however, have retained the gross ton as the unit of the retail trade, and whoever compares the price in one city with that in another must be sure that the unit is the same. Thus in Baltimore, Washington, Pittsburgh, and Philadelphia, anthracite is usually quoted per gross ton, and the buyer in those cities gets almost an eighth more than the purchaser of a net ton in New York, Newark, or Boston.

The mining of anthracite results in a major product —the domestic sizes—and a by-product—the fines or steam sizes. The one cannot be produced without the other. The percentage of fines varies from mine to mine, but over the region as a whole it is not possible to raise the proportion of domestic sizes much above 70 per cent of the fresh mined coal. The disposition of his steam sizes is, therefore, a constant problem to the anthracite operator. Some of them he burns to generate the very large amount of power required about the colliery and breaker. The rest of them he must sell in competition with bituminous steam coal, and including the fines obtained from the washeries and dredges, these seldom average less than 27 per cent of the shipments. Oftentimes he has to store this by-product for an extended period when the market is dull. The price realized by the operator for the steam sizes is below the average cost of mining the coal. It is, therefore, necessary for him to make considerably more than an average profit on the domestic sizes, and in practice it is the custom of the mining region to think of the revenue obtained from the sale of the steam sizes simply as a credit against the cost of production, thereby lowering the price which must

be charged for the domestic sizes in order to operate at a profit. The tax which the state of Pennsylvania proposes to put on anthracite will probably be wholly carried by the domestic sizes rather than in part by the steam sizes which have to compete with bituminous coal.

Besides the eight railroad coal companies there are about two hundred other concerns (including dredging operators), some of them very small, which produce all together 25 per cent of the total output. Most of these independent companies own but little land themselves, and lease, frequently on onerous terms, from the holders of the fee. Their operations on the whole are conducted on a much smaller scale than those of the "railroad" companies and instead of maintaining their own distributing organizations most of them sell through jobbers and wholesalers. The costs of these "independent" operators undoubtedly do exceed the average of the railroad coal companies. Furthermore, they have to stand on their own feet and do not possess the joint sources of revenue from the transportation as well as the mining of coal, which have been in the past at least available to the railroad coal companies. The fact of their higher costs was recognized by the Fuel Administration, which allowed them a maximum price of 75 cents per ton greater than the maximum for the railroad companies.

The most striking difference between the "independent" and the "railroad" companies has been in their price policies. While the railroad coal companies have stuck closely to their circular prices, which varied but little from one month to the next, except in carrying out their announced policy of summer discounts, the "independents" have followed the ordinary business practice of selling their product for what they could get and to anyone who wanted to buy. When the market was active they have sold coal at a "premium" above the circular prices of the railroad companies, and in times of dull market they have sold their coal "below circular" in order to move it.

The "independent" and "company" prices for anthra-

cite resemble in many ways the spot and contract prices on the bituminous market. Granted the policy of the railroad companies to sell to their established customers and to sell at stabilized prices, neither rising nor falling with the market, it follows that the relatively small tonnage of "independent" coal bears the brunt of the emergency demand in times of scarcity. Those who really want to get emergency supplies of coal and who are willing to pay any price tend to bid against one another for the "independent" tonnage. This concentration of the scarcity demand upon a small part of the output may cause violent fluctuations in the price of independent coal, as in 1920.[1]

The fact of the two prices f.o.b. mine—the "independent" and the "company" price—has led to some confusion and misunderstanding in the public mind. No doubt there have been unscrupulous retail dealers who have bought "company" coal and sold it at prices that would be justified only if they had bought "independent" coal at a premium, but it often happens that particular instances of apparently excessively high retail prices when traced back are found to refer to "independent" coal. The consumer, however, learning that the circular price of stove anthracite was $7.95 per gross ton f.o.b. mine last November, assumes that that is the price his dealer has had to pay whereas the dealer may have been paying $10, $12, or even $15 a ton f.o.b. mine for independent coal.[2]

We have grown so accustomed to anthracite in the United States that we do not realize how uncommon a fuel it is. The only production outside of America consists of a few million tons in England and South Russia, and a very little in France, Spain, Canada, and far-away Indo-China. The output of all these countries

[1] The independent operators claim with some justice that they have to charge premium prices in times of active demand to balance their sales below circular in times of dull demand. They use prices to stabilize output.

[2] Not all independent coal was sold for prices as high as these. Some of the independent companies had their own circulars and continued to adhere to them.

combined now amounts to only a tenth of that of the United States. This means that most of the civilized world burns for household use either lump bituminous coal, coke, or briquets.

Even in the United States we must recognize that the maximum rate of anthracite production has already been reached, and the most we can hope for is to maintain something like the present annual rate of output—ninety million short tons a year. In 1913, for example, the shipments outside the anthracite region—what may be called the commercial production—of the prepared sizes, including pea coal, amounted to fifty-eight million net tons. In 1919 the shipments of the same sizes amounted to only fifty-six million tons, and though complete figures for 1920 are not yet available the record for that year was only a little better than that of 1919. Yet in the meantime the population to be served was steadily increasing.

From 1890 to 1900 the shipments of domestic sizes, excluding pea, increased about 10 per cent, but the population of the territory served by anthracite coal increased about 30 per cent, and therefore the quantity of domestic anthracite available per capita decreased. Since 1900 the rates of growth of production of domestic anthracite and of population have been about the same. In the same twenty years (1900-1920) that the supply of domestic sizes of anthracite has increased only 40 per cent, the supply of bituminous coal has increased 160 per cent. In 1900 the per capita production of soft coal was two and eight-tenth tons; in 1920 it was five and three-tenth tons. All this means that the bituminous mines have had to take over a part of the load which would have been carried by the anthracite mines had anthracite been as abundant as bituminous coal. To take care of the increasing demand the anthracite operators have very properly sought to persuade consumers to buy the smaller sizes for domestic use. In this way they have gradually induced householders to burn pea coal, formerly consid-

ered one of the steam sizes, and now that pea is accepted as one of the prepared sizes regularly carried by the retail merchant the producers are seeking to popularize the next smaller size, No. 1 Buckwheat. Buckwheat has already been adopted by most of the larger apartment houses in eastern cities, and no doubt still more of it will in time be used by the householders. To increase further the supply the rivers of the anthracite region are being dredged for accumulations of coal washed down from the mines, and the old culm banks are being re-worked to obtain small quantities of domestic coal and larger quantities of the steam sizes.

All of these measures, useful as they are in making the limited supply go further, only postpone the day when more and more of our people must find a substitute for anthracite. The need has developed in acute form in places in the east that have hitherto been supplied with natural gas but that are now turning to anthracite as the flow of gas becomes feebler and feebler. The city of Buffalo is just such a place and a large part of the distress reported from that city during the past year may be traced back to the waning supply of natural gas and the desire of consumers to buy anthracite to replace it.

NATIONALIZATION [1]

The word usually employed to describe proposals such as those advanced by Mr. Justice Sankey is nationalization. It is not a felicitous one. Quite apart from its liability to cut short blameless citizens by inducing premature apoplexy, it has the even more serious defect of confusing under one ambiguous title two problems, between which it is important to distinguish. The first is the problem of ownership; the second is the problem of administration. One cannot, it is true, decide on the

[1] From article British Coal Industry and the Question of Nationalization, by R. H. Tawney, London, England. Quarterly Journal of Economics. 35 : 91-3. November, 1920.

former without having reached some provisional conclusion with regard to the latter. But when the question of ownership has been settled, the question of administration still remains for solution. The possible types of organization, if private ownership is terminated, are various, and the practical merits or demerits of nationalization depend largely upon which is selected. To assume, as is too often done in current controversy, that the model to which the organization of any nationalized industry must conform is that of the Post Office, is as reasonable as to regard the United States Steel Corporation or the Standard Oil Company as the grand pattern and exemplar of private enterprise. The truth is that, whether an industry is in public or private hands, it may be organized and managed on one or other of several different methods. Which is most suitable will depend partly upon the technical conditions of the particular industry under consideration, partly upon less easily definable matters of political and social habit and tradition. It would obviously be absurd to suggest the same administrative system for the coal industry as for the railways; nor is it likely that the organization which suited (say) Prussia would be that best adapted to secure an efficient service in England or America.

These things are of course truisms. It is the more to be regretted that eulogy and criticism have tended during the past year—so low is the plane on which the controversy has been carried on—to be devoted to associations which the mere word "nationalization" awakens in the minds of different writers, instead of to the concrete administrative structure of which it is (or ought to be) the symbol, and which alone matters in practice. "Public service," "economy," "elimination of waste," "professional zeal"—the presence of these virtues will not be secured by public ownership, but only by public ownership so organized as to elicit them. "Red tape," "bureaucracy," "over-centralization," "the government stroke," "the civil service tradition"—these vices *may* accompany

public ownership; whether they *will* or not, depends again upon whether the administrative system established is such as to encourage or to repress them. The realization of that elementary truth would be, it may be suggested, the beginning of wisdom, as well as—a not less happy consummation—the end of much eloquence. Unfortunately it appears to be the last to be apprehended. So the critics of nationalization attack it on the ground that state management is necessarily inefficient, and presumably trembled with apprehension whenever they post a letter. And the supporters of nationalization argue that state management is necessarily efficient, and are to be seen praising God whenever they use a telephone. Their arguments are eloquent, ingenious and sometimes even amusing. They have only one trifling defect. They assume as a thing simple and self-evident the type of organization to accompany public ownership, which is precisely the most complex and important of the questions at issue. They are directed to the denunciation or advocacy of proposals which no one has advanced.

PUBLIC OWNERSHIP THROUGHOUT THE WORLD[1]

This last step from private to public operation has been the result of many forces, some conservative and some genuinely democratic. Governments have urged the adoption of public ownership in order to raise revenue and to increase economic and military efficiency in peace and in war. Businessmen have fought for public ownership of certain utilities in order that they might obtain cheaper power and other services, and thus be enabled to compete more effectively against business interests in other communities.

The mass of the people have demanded public control in order to abolish the anti-social exploitation and tyranny of large corporations and monopolies; to promote the

[1] From pamphlet by H. W. Laidler. 48p. Rand School of Social Science. New York. 1918.

health and safety of the community; to increase educational and recreational opportunities; to encourage the use of certain services and commodities, such as the water supply, and discourage the use of others, such as alcohol; to reduce the enormous wastes of individualistic competition; to decrease the high cost of living; to improve the condition of the workers, and to strengthen in general all those forces which are working for a more complete democracy and brotherhood.

Extent of Public Ownership

The trend of collectivism, as a result of these many forces, became so pronounced even before the war, as to make the plight of the individualistic philosopher indeed a sad one. In describing his case in "individualistic" England, Mr. Sidney Webb, the noted English economist, a few years ago, humorously remarked:

> The individualist city councillor walks along the municipal pavement lit by municipal gas and cleansed by municipal brooms with municipal water, and seeing by the municipal clock in the municipal market that he is too early to meet his children coming from the municipal school, hard by the county lunatic asylum and the municipal hospital, will use the national telegraph system to tell them not to walk through the municipal park, but to come by the municipal tramway, to meet him in the municipal reading room, by the municipal art gallery, museum and library, where he intends to consult some of the national publications in order to prepare his next speech in the municipal town hall in favor of the nationalization of canals and the increase of government control over our railway system.

In fact, the state, whether we like it or not, is being silently transformed from a mere government of men into a huge industrial plant. In Europe, South America, the United States, Japan and their dependencies, we are told by the Fabian Research Bureau that, immediately prior to the war, the public property possessed by the various governments, excluding that connected with the armies and navies, did not amount to less than $50,000,000,000. The persons employed directly in public works, numbered between ten million and twelve million, and the wages

paid out for all grades of public work aggregated between $2,000,000,000 and $2,300,000,000 a year.

The Fabian Research Department declared:

> The population in government employ today certainly exceeds the whole existing population of the United Kingdom; their annual income, which we may take as some sort of valuation of their services or product, exceeds the entire wealth production today of all the inhabitants of any but a half dozen richest nations of the world; whilst the capital thus administered is more than double the entire wealth of the essentially individualist England that welcomed the world to the 1851 exhibition—is as great, indeed, as Giffin's estimate for the entire wealth of the United Kingdom, as recently as 1885.
>
> It is a significant fact that even omitting the army and navy, the state department has become, in the 20th century, in every civilized nation, by far the greatest employer of labor.

Natural Resources

If we consider the next great division, that relating to natural resources—forests, mines, petroleum and water power—we must confess that these are still largely in the hands of private profiteers.

Forests—Great strides toward public ownership and control have, however, been made in certain directions, particularly in the case of the nations' forests.

Mr. Walling in dealing with this resource declares:

> It is probably safe to say that the larger part of the forests in modern civilized communities are already under government control, and it is certain that the government area is increasing in most countries.

More than 13 per cent of the entire area of Germany and over one-half of the entire forest acreage of that country is now controlled by public bodies—and conducted with remarkable scientific precision. Worthy also of mention in this connection is the vast area of public forest land in India of no less than two hundred and forty thousand square miles; the six hundred and sixty million acres of forests in Russia, and the great stretches in Sweden, Japan, Canada, France and other countries.

Our own government during the last century, has

given away much of its bounteous heritage of timber land to great private railroads and other interests. At present it possesses about one-fifth of the five hundred and fifty million acres of timber now standing, and that not the most valuable fifth. Since 1891, however, the Federal government has assiduously endeavored to protect the one hundred million acres still in public control, as a result of which, "the forests on the public domain," according to the United States Forest Service, "have passed from a condition in which the timber was always in imminent danger of being destroyed to one in which it is everywhere protected; from a state in which, as a result of repeated fires and wasteful lumbering, the annual growth was steadily decreasing, to one in which scientific management insures a steady increase in annual growth and a good supply of timber for the people for an indefinite period."

Public Mines—Far less extensive in proportion to the total are the public holdings in mines. Nevertheless, there is a definite tendency toward increasing public control. This movement has been augmented by the evils of monopoly and the labor conflicts accompanying private ownership. Public control has been definitely established in many parts of Australia. New Zealand and Victoria own several mines. As early as 1898, the government in Western Australia provided that land grants should contain a reservation of all minerals. Whenever minerals were found in the land where the surface rights had been alienated, the government was empowered to reenter the land, paying the surface owner the value other than for the mineral contained therein. In Victoria, South Australia, Tasmania and New South Wales the leasehold system is practically supreme, and no private individual may assert with an eye to the truth that God in His infinite wisdom has bestowed upon him the coal properties of those territories.

Some progress toward public ownership of mines has recently been observed in Europe. Holland, Sweden, and

Austria-Hungary possess a considerable number of coal mines, and, during the past few years, the first named government has been making a steady drive toward further social control, while Prussia now counts among its possessions no less than three hundred and forty-five coal fields. Iron mines are also owned, in considerable measure, by Sweden and Prussia. Public silver mines may be found in Scandinavian countries. Salt beds are public monopolies in an unusually large number of nations. These include certain South American countries—Venezuela, Colombia, Equador and Peru; Japan and China in Asia and France, Austria and Rumania in Europe.

COAL: A PUBLIC UTILITY[1]

Coal is a public utility, in the same sense that transportation is a public utility. It was not so defined, to be sure, in the creative period of English legal evolution, when the public character of the service of common carriers became established. In those days people burned wood, and trees grew everywhere. The common carrier was given a special status and subjected to special regulations for the excellent reason that, if left to his own devices, he had it in his power to take everyone else by the throat. That is exactly the position of the coal industry today. Every other industry depends on it, if not directly as a source of power, at least indirectly as indispensable to railway transportation. Every city dweller depends on it for heat and light and street railway service. If there is any good reason why the public authorities should take a hand in the control of transportation, there is as good or even a better reason why they should take a hand in the control of coal. This everyone recognizes at times like the present when a great coal strike impends and we are threatened by a fuel famine.

[1] From New Republic. 30 : 121-2. March 29, 1922.

Everyone is ready to go at least so far as to force a settlement by means that would not be regarded as appropriate to textiles, the clothing industry, shoe manufacturing or other industries that remain essentially private.

A threatened strike concentrates public interest on the industry and reveals its essential character. But the major problems of the industry in its relation to the public are always with us. It is important that the operators and the miners should come to some sort of agreement that permits the industry to function. It is still more important that in normal times the industry should function with efficiency and economy. Whether we are liberally supplied with the manufactured products we need depends on the price of coal. Cheap coal or dear determines our international competitive position. No effort lavished upon building up a merchant marine will secure our position in the international competitive field unless our goods can come to the ports stripped of excessive fuel costs.

It goes without saying that we have to pay for coal the cost of mining it, and that the cost must be reckoned in the terms usual with private industry. The mine workers must have fair wages and the operators must have fair profits. The industry is affected with a public interest, but the property and labor employed in it remain private, possessed of the usual private rights. The enjoyment of those rights is, however, properly subject to one condition: that the industry must be conducted with the maximum practicable efficiency. The industry has a right to a fair day's pay for a fair day's work. Does it give the fair day's work? No.

According to the United States Geological Survey, the soft coal miners averaged something more than three days' work a week in 1921. In the last thirty years they have lost on the average ninety-three working days in the year or 30 per cent of their possible working time. We have been maintaining, then, in some fashion, 30 per

cent more miners than our fuel requirements demanded.

According to the statements of the operators two-thirds of the mine cost of coal consists of miners' wages. Then 20 per cent of the cost would have to be placed under the head of surplus labor maintained in the mining communities. There is another item in unnecessary costs which it is impossible to evaluate definitely. That is the depreciation of unused mine equipment, and interest on the capital invested in it. The two items together must mount up to one-quarter or more of the mine cost of the coal.

Almost all the coal must be loaded on cars and shipped considerable distances before it reaches the consumer. And everyone knows that the irregularity of operations at the mines keeps thousands of coal cars standing on side-tracks eating up interest and maintenance charges. What this item amounts to nobody can say.

Nor can anyone say how far excessive profits prevail in the mining and the handling of coal. We know that in some cases, at any rate, profits have been exceedingly high. We know that in other cases excessive royalties have been paid. According to the testimony of Mr. A. B. Jessup before the sub-committee of the Senate Committee on Interstate Commerce, the royalties of the Girard estate on some three million tons of anthracite rose with the price of coal, and have gone up to $1, $1.25, and in the case of one company to $1.33 a ton. That is the tribute of the householder to the principle of absentee landlordism. How general this abuse is, however, nobody knows.

Some profiteering in coal there certainly is. How much there is nobody knows. There is a vast deal of inefficiency, but here again nobody can say just how much. Nobody knows what the coal miner of average efficiency is actually making, or what it really costs him to live. Ask almost any serious question you wish about the industry, and the one truthful reply will be, nobody knows.

Nevertheless, coal is a public utility, and the American people have a right to all the facts. They must have the facts if they are to act, and they must act, unless we are as a nation to be cramped in supplying our domestic needs and handicapped in all our international competitive relations. Why have we not the facts, then?

Because the coal operators will not let us have them. They say that the public labors under a delusion in its belief that there is profiteering in the industry. They say that the major part of the industry is more familiar with losses than with profits. They say that the waste involved in keeping five men to do the work of four is due to causes beyond their control. Perhaps that is true. But if it is, why do they fight so desperately to prevent any competent public inquiry into the facts? The Federal Trade Commission has been enjoined from pursuing its inquiry into profits. But why do not the operators' associations waive their rights to secrecy and offer free access to their books? If they have nothing to hide, why do they act as if they had everything to hide?

For our own part we do not believe that profiteering is the problem of chief importance in the industry. Incompetence is, we think, the greater problem. We do not believe that the incompetence can properly be imputed mainly to the individual operator. It is the whole system of coal supply that is at fault. And what we need immediately is not a scheme of price-fixing nor the prosecution of technically unlawful combinations in the industry, but an entirely new orientation, the recognition of the position of coal as a public utility.

As a public utility we ought to have an official engineering survey of the national requirements and of the whole system of supplying those requirements, from the mine to the consumer. We ought to know the costs and profits at every stage in the process. And when we know this we ought to call upon the engineers of the country to find us a plan of operation by which both the costs and the profits can be cut back to a reasonable minimum.

Must we nationalize the mines to arrive at the object desired, or can we get on with a system of regulated private property in coal lands? Must we seek to restore competition, or encourage the formation of greater and more responsible operating units? We cannot know until we get the facts. But the facts we must have. And we can get them when once we recognize that anarchy in coal supply is no satisfactory basis for an orderly industrial state.

EXTRACTS FROM FIRST REPORT OF UNITED STATES COAL COMMISSION[1]

The Public and Coal

The coal problem begins with a contradiction. Rich beyond all other nations in its wealth of coal resources, the United States experiences coal shortages and high prices. The coal deposits of the country are abundant and well distributed. Coal of every variety from anthracite to lignite underlies the hills and plains and mountains in beds whose content is measured by thousands of billions of tons, so that coal of a quality and in quantity that would be regarded as important by most other nations is found in all but thirteen states of the Union, and commercial mines are being operated in twenty-nine states.

Yet with resources of coal in the ground adequate for the needs of perhaps a hundred generations of Americans, the nation's coal bin is too often depleted and too often the prices paid for coal are much higher than seem warranted by the wealth of coal available.

There have been during the last six years three periods when shortage in the supply of coal has given rise to acute national concern. These recurring periods of scarcity have increased the cost of this basic commodity—

[1] From Industrial Management. 65 : 99-100. February, 1923.

increases especially serious to domestic consumers, railroads, and public utilities. These experiences of unsatisfied demand and unsatisfactory prices have created in the popular mind a conviction that the natural benefits to be expected from a condition of plenty have been denied through artificial interference.

Deficiences in Service

The widespread public dissatisfaction with the service rendered by the coal industry is not confined to matters of shortage and price, for a train of unfortunate consequences has followed those recurring periods of scarcity; deterioration in the quality of fuel delivered; congestion of railway traffic, necessitating the neglect of other freight to give preference to coal, to the serious harm of other producers and consumers of coal as expressed in the customary contractual relations.

The record of production and distribution of coal in recent years may be summed up in the word "instability," and this instability in the supply of one of the most fundamental of all raw materials has been an important cause in unsettling business and in delaying the return of normal times.

Large Profits

It has been suggested to us that one of the causes of high prices of coal is profiteering. There has been profiteering in the sense that grossly exorbitant profits have been taken at times by many operators, brokers, and retailers; profits that have been disproportionate to the cost of coal or the service rendered or the risk incurred.

But this commission has not yet obtained the figures for the past ten-year period specifically required by the act in order to settle this question. A thorough examination of the profits of production and distribution,

including the revenue derived from associated enterprises, is already under way.

Labor Difficulties

There can be no doubt that two of the three periods of high prices since 1916 have been caused largely by labor troubles. In the first period of scarcity—August, 1916, to March, 1918—there were no strikes of consequence and, therefore, some other explanation of the high prices and distress must be found.

The second period of run-away prices, November, 1919, to late in 1920, was originally caused by a nation-wide strike of miners beginning November 1, 1919. In this case the shortage created by the strike was aggravated by difficulties in transportation resulting in part from severe weather and in part from a strike of railway switchmen, and was further intensified by an unprecedented demand for export and by boom times at home.

In the third period of shortage and high prices, from which we have not yet emerged, the primary cause was a nation-wide suspension of mining, involving practically all union men, which closed the anthracite region completely and shut down two-thirds of the capacity in the bituminous fields of the United States and Canada. As to the merits of that suspension, whether it more resembled a "strike" or a "lockout," the commission expresses no opinion in this report. The point of immediate interest is that, as before, the effects were prolonged and intensified by transportation troubles until prices rose alarmingly and industrial plants began to close.

Whatever the cause or the merits of the labor controversy, it is clear that an indefinite repetition of these crises in the production and distribution of coal would be intolerable. Industry and the home alike must be freed from the menace of constant interruption of their coal supply.

Car Shortage

An opinion commonly expressed before the commission is that the primary cause of scarcity and high prices of coal is transportation deficiency.

There have been recurring periods of "car shortage," and such periods have generally been accompanied by high prices of coal. There are many other causes for the inadequacy of transportation beside the absence of cars, such as lack of motive power, congestion of yards, terminal facilities, or gateways, single tracks where double tracks are needed, inability to coordinate movement of boats and cars at ports, strikes of railway labor, and severe winter storms temporarily blockading traffic. Any one of these elements may be responsible for what to the mine operator seems a simple "shortage of cars."

Car shortage occurred at intervals before the war, but since 1916 it has appeared more frequently and for longer periods, and its effects upon prices and coal supply have been more serious. This increase in transportation disability as a factor interfering with the movement of coal is in part due to the depreciation of equipment under the strain of war and labor complications. This important subject—inadequacy of railroad equipment—is under careful study by the Interstate Commerce Commission as well as by this commission, and it is hoped that definite recommendations can be made later.

At the beginning of 1923 the bituminous coal industry presents to the country its usual contradictions. The one complaint common to most of the coal mining territory is that of "car shortage"; yet the outstanding fact is that in spite of a miner's election day and the Christmas holidays, these coal mines produced in December, 1922, over forty-six million tons of soft coal. An actual shortage of anthracite has kept domestic consumers on the verge of a buyer's panic, restrained only by the cooperation of the larger coal operators with the Federal and state fuel distributors, yet the forty-six million tons of soft coal was probably sufficient for the coun-

try's needs for current consumption, even in December, if evenly distributed. The fact that low coal reserves in the hands of the consumers are not being rapidly replenished doubtless adds to the fear of scarcity, yet a full-car-supply for the country's soft coal mines, as rated by the railroads, would have furnished transportation in December for more than seventy-five million tons or twenty million tons more than the country ever took from the mines in a single month. Plainly, "100 per cent car supply," as based on such inflated ratings, would create a car surplus or a coal surplus far beyond the ability of the market to absorb.

Over-development

Already in our study we have come to see that underlying these immediate causes of scarcity and high prices —labor difficulties and transportation deficiency—are other causes: the irregularity of demand and the over-development of the mining industry. These basic factors apply directly only to bituminous coal but indirectly they affect anthracite as well, for anthracite is in competition with bituminous coal and the wage scale in the one industry is influenced by changes in the other.

We find that in the bituminous industry since 1890 the mines have averaged, over the country as a whole, only two hundred and thirteen days out of a possible working year of three hundred and eight days. These averages, of course, show nothing as to the relative annual earnings of individual miners or their individual opportunity to work. In 1920, a year of active demand, the average time worked was only two hundred and twenty days, and in 1921, the year of depression, it dropped to one hundred and forty-nine days, with many districts showing a figure much below this average. Over a long period comparatively little of the time lost has been on account of strikes and that in the years when there are no strikes the aggregate time lost from all causes is about as great as in those when strikes occur. In the twenty-three years

over which the statistical record of strikes extends, the time lost because of strikes has averaged nine days a year, or less than 10 per cent of the time lost for all causes.

This condition of over-development in mines and of surplus number of miners is an underlying cause of the instability of the industry. It means unemployment and intermittent employment to the coal miner and a direct loss to him of earning power. It explains his need and demand for a day wage rate higher than the average for most other industries. It has also cut the profits of the operator and imposed a burden on the consumer.

The seasonal character of coal movement is a serious handicap to the railroads in those districts where it is the rule. If the peak demands of the mines are to be met the carrier must provide equipment for which there is no use in the off-season.

As for the public, the cost of maintaining an over-developed industry is reflected in the high price of coal. We do not know accurately the extent of burden, but it may well be measured by the cost of keeping in the industry an excess of perhaps two hundred thousand miners and their families and the excess investment in mines.

In Conclusion

The inquiry involves the whole question as to what is best for the people, free competition, government or private ownership, regulation or control in the coal industry. Should the operators in given areas be permitted to combine so that the low-cost mines would furnish the product to the people and the high-cost mines kept in abeyance to meet an emergency, properly regulated as to price and profit by some governmental agency, or should this prime necessity of life and business be left wholly to open competition in the market? This problem is of so great moment, that the view of the commission must be left to its final report.

There can be no satisfactory agreement as to wage

rates and no lasting peace between operators and men unless steadier employment can be provided. There can be no satisfactory solution of our transportation problem as long as the railroads are subjected to sudden peak loads of coal traffic at the season when the demands of agriculture and industry are at their height.

The commission believes that the public interest in coal raises fundamental questions of the relations of this industry to the nation and of the degree to which private right must yield to public welfare. It may be that both private property in an exhaustible resource and labor in a public service industry must submit to certain modifications of their private rights, receiving in return certain guarantees and privileges not accorded to purely private business or persons in private employ.

FACT-FINDING MINERS [1]

If the fact-finding commission appointed by President Harding under act of Congress, to investigate the coal mining industry, proves to be just like any other governmental commission, it will not be the fault of the mine worker. Their organization has been bombarding the commission with pertinent facts and with considerable suggestions for improving the economy of the coal business. Their latest offering is a statement from the anthracite miners pointing out that under the system of accounting used by the commission in gathering statistics to determine costs, profits, and investment in the industry, there are thirty-six separate opportunities for inaccuracy or inflation. The miners insist, logically enough, that only through a definitive system of accounting can the essential facts about the business be determined.

From this the miners proceed to certain fundamental suggestions. They declare that the anthracite business is conducted as a monopoly, whereas it should be carried on

[1] From Freeman. 7 : 364. June 27, 1923.

as a public service. While it continues to enjoy the prerogatives of monopoly, the miners insist that it should be subject to public regulation. It should have a standardized system of accountancy and its books should be open. The profits should be limited to a reasonable return on the sacrifice-cost to investors. Speculative and collateral profits should be done away with. In order to transform the industry into a public service, the miners propose that private ownership in the coal mines be liquidated by a system of gradual payments extending over fifty years. The total cost of such a program, including interest and sinking fund, they place at 27 cents a ton.

It is not our purpose at present to discuss these proposals. We prefer rather to call attention to a significant fact which is indicated in them: the fact that the coal miners have progressed far beyond the narrow trade unionist philosophy of Mr. Gompers. Their ambitions have soared well past the immediate problems of wages and hours, and they see that in the long view their welfare is bound to the welfare of their industry. As long as the industry is a tail on the kite of monopoly, they are condemned to chaffer over monopoly's lean doles. As long as the industry is given over to speculative profits, waste and mismanagement, their lives must be fruitless. Only through a system of well-ordered productivity can the industry be made to yield them a decent return for their toil.

In our opinion the miners are carrying on an educational work of great value for themselves and the rest of the community. Whether or not their efforts will bring enlightenment to the United States Coal Commission remains to be seen. Political commissions are commonly impervious to education. It is not their business to learn, or to solve any fundamental problems, but to devise a pretty bit of window dressing to divert the man in the street. The Coal Commission was born of political necessity. The coal strike and the chaotic conditions in the

coal industry had caused such a public clamour that Senator Borah's plan for the appointment of a fact-finding body had to go through, though it was somewhat modified and weakened in transit. It will be remembered that a few years ago the British government was forced to create a somewhat similar commission. Through some miracle the Sankey Commission submitted a report recommending certain fundamental changes in the industry, calculated to break the hold of monopoly. The politicians completely ignored the findings, as it was inevitable they would. It is highly improbable that political agencies in this country will be influenced by the zealous analytical work of the American miners. The miners, however, may comfort themselves with the knowledge that energy expended in education is never lost.

COAL COMMISSION

This (the making of a complete and careful diagnosis of the diseases affecting the industries) suggests the universal American remedy for everything—a congressional inquiry that starts off briskly, soon fetches up lame, and usually gets nowhere. In my time there have been several of these in the coal industry. Of them, I can recall but one that even remotely can be credited with accomplishing much. That was the investigation by the Senate Committee on Education and Labor into the Paint and Cabin Creek troubles of ten years ago. Those troubles were settled while the committee had the matter before it, but it would be unfair not to say that its labors had not contributed to that end.

Such inquiries fail to produce tangible results, because, primarily, legislators are not technically fitted for the

[1] From Coal—the Roosevelt Way Out, by John J. Leary, Jr. United States. House Committee on Labor. Investigation of wages and working conditions in the coal mining industry. p 419-21. Part 1. 67th Congress, 2nd Session. Government Printing Office. 1922.

work, and have too many other duties to perform. Occasionally, to be sure, a Lockwood, or a Lexow Committee in New York, or a Tewksbury Committee in Massachusetts may and do get real results, but these are due to the accident of an Untermyer, a Goff, or a Butler as counsel to the committee and situations almost if not perfectly obvious, with all the facts upon or near the surface.

In the coal industry this is not the case. The facts are involved, and ofttimes obscured and clouded by technicalities puzzling to the average layman. It is made additionally difficult by the opposition of the men and interests in the industry to "any outside interference." Nor does the certainty of politics in one form or another intervening to protect this interest or the other tend to decrease the difficulties any committee or commission of laymen would encounter.

This brings me to what seems to the more thoughtful with whom I have talked to be the only way in which we can obtain a real understanding of the coal industry, its evils and abuses, its needs and its possibilities—the appointment of a semitechnical commission on the lines of a British royal commission, with power to send for persons and papers.

Such a commission would be made up of engineers skilled in mining, an accountant versed in the mysteries of corporation bookkeeping, a banker, one or more practical miners and operators, perhaps a railroad man, representatives of the manufacturing interest and of labor, and one man of recognized standing, not identified with coal mining, manufacturing, labor, or railroading to represent the general public.

Such a commission would, of necessity, have to be well salaried—unpaid commissioners are seldom worth more than they cost—have instructions to report to Congress within a definite period, have a roving commission to go anywhere, and power to punish recalcitrant wit-

nesses for contempt equivalent to that possessed by United States courts of first instance.

Before it neither witness nor interests should be allowed counsel to block its purpose or cloud the record and all hearings and records should be public, while as a relief to witnesses who otherwise might claim constitutional right as an exemption from testifying, the commission should have the right to grant immunity for criminal offenses up to and including murder, for if I mistake not, a lot of red other than ink would appear on the record of any thorough inquiry.

With these powers the commission should have no great difficulty in getting at basic facts. It could, for example, determine how it is that whereas, in the olden days, operations of individuals and small firms in the anthracite field made millionaires, the large combinations now mining anthracite frequently report meager earnings, though the public pays three to four times what it used to pay for its kitchen fire.

It might determine who got the difference between the $1.75 John L. Lewis recently told a convention was paid at the mine mouth for a ton of coal sold for $14.75 in Philadelphia and why he or they got it.

It might determine to what extent interlocking directorates, sales, and supply companies contribute to the admittedly excessive cost of coal.

It might determine to what extent favors in the form of empty cars to operators are repaid by coal for railroads at less than the mere labor cost of digging it, figure in the costs to the general public and industry and why.

It might determine to what extent selection of the right banker by an operator depends his supply of empty cars, and what above the going rates for money such bankers charge and collect.

It might determine what is a fair royalty to owners of coal lands, and why one charitable institution holding thousands of acres of the best coal lands that cost the

philanthropist whose name it bears but a few cents an acre can now collect as high as $2.50 a ton on each of the tens of thousands of tons each of its acres of coal lands contain?

It might determine why it is now costing the United States navy more to haul coal to tidewater from West Virginia mines a few hundred miles inland than the coal costs at the mine mouth.

It might determine why for months in each year the industry should languish, while nearly every year sees a threat to the northwest or New England of a coal famine.

It might determine whether or not a system of coal storage cannot be developed that will permit of steadier production and lower costs, and if none can be devised, why not?

It might determine how it is that in West Virginia where conditions of the direst poverty and want, not to mention deprival of basic rights of citizenship, prevail it is possible, as reported by Wall Street agencies, for a company to earn $20 or more in a single year on each of its $1 shares of capital stock.

It might determine the actual relationship between the politicians of that state and the mining interests by which the latter are given a free hand to do as they please.

It might determine on what a certain West Virginia official, a lawyer by profession, bases his declaration that "the Constitution of the United States does not apply to West Virginia, save that amendment which requires that its laws shall bear equally on all."

It might determine to what extent, if any, the charges of murder and criminal conspiracy on the part of union officials have basis in fact.

It might determine to what extent the influence of operators with surplus stocks of spot coal contributed to cause the strike of 1919 and to the troubles of 1922.

It might determine to what extent, if any, operators in union fields having properties in non-union territory

have combined to force a strike in 1922, thereby securing an advantage over competitors not so situated.

It might determine the amount of money collected by various operators' associations as a tonnage tax, passed on to the consumer, and the uses to which money so collected is put.

It might determine to what extent, if any, charges that the heads of the United Mine Workers countenance contract breaking are true.

It might determine the approximate waste in the industry and its direct cost to the public.

It might determine ways and means of restricting waste by the development of more scientific methods of mining or provide data on which laws compel the use of known methods.

It might determine to what extent, if any, eminent philanthropists of Boston, Baltimore, Philadelphia, or New York share in alleged unholy profits wrung from miner and consumer.

It might determine if and how foreign markets can be developed for our surplus capacity, thereby providing steadier work for miners, cargoes for our idle ships, and cheaper coal for domestic use.

It might determine the volume of union receipts and the actual disposition thereof, including payments, if any, to gunmen.

It might determine to what extent, if any, the unions are infected with graft, and to what extent, if any, there is dishonest collusion between operators and union officials.

There are but a few of the things such a commission would naturally interest itself in. Others to be developed in the progress of the inquiry should and would expose the workings of the industry even as the steam shovel exposes the vein near the surface. Once the wastes and the weaknesses are exposed, it should not be an impossible or even extremely difficult program for reforming the industry on a rational and far-seeing basis.

WHY WE PAY 30 PER CENT TOO MUCH FOR OUR COAL[1]

Our coal problem is the problem of the bituminous industry. It arises out of a condition of over-development of coal resources and intermittent employment—factors which underlie the troubles that plague the consuming public.

Something like eight thousand bituminous mines are operating where fifty-five hundred would amply supply the country's needs. Under normal working conditions, these eight thousand mines can turn out eight hundred and fifty million tons a year, or three hundred million tons more than we use. Eliminating the comparatively small number of mines that produce steadily in order to supply contract requirements of the railroads and metallurgical industries, it is found that the remainder operate on an average only one hundred and eighty days in the year out of a possible three hundred and eight days; and the average for all mines is normally but two hundred and ten days. This compares with about two hundred and ninety-five days in England and more than three hundred days in Germany.

Following last year's prolonged strike, from April 1 *to August* 15, *the President's Fact-finding Commission was organized and began its work.*

From the industry itself have come two suggestions looking to relief from conditions that provoke periodic warfare. The miners' union leaders have submitted a plan to nationalize the mines; and certain operators have tentatively proposed the consolidation under private ownership of competitive mines, with the object of reducing output from high-cost pits and insuring stability of production. The miners' proposal has been looked upon by industrial executives and the coal-consuming public as visionary, and that of the operators only as a possibility of a somewhat remote future.

[1] By Herbert Hoover. Industrial Management. 65 : 65-6. February, 1923.

There is, however, an immediate and practical step to be taken toward the solution of the problem. It involves cooperative action among producers, the railroads and the large consumers; and its direction is indicated in the following compacted and closely reasoned statement by Secretary Hoover.—THE EDITORS.

The long continued investigation of the Department of Commerce with respect to the coal and transportation industries has led the department to the firm conclusion that the difficulties and bad functioning of the bituminous coal industry in a large degree flow from the insufficiency of transportation.

Since the war there has been in normal business years a shortage of coal transportation for at least three months of the year, and in prosperous business times this shortage of transportation has extended almost throughout the whole year, as in the case of 1920.

The bituminous coal industry can produce about sixteen million tons per week. The demand varies from eight millon tons to thirteen million tons per week. The railways can apparently carry a maximum of about eleven million tons of bituminous as a continuous performance. A great number of vicious cycles have resulted at least in part from this cause.

First, there is at once created a fictitious price of coal to the consumer. In the year 1920 the price of spot coal rose over 300 per cent, due almost entirely to transportation shortage in the face of maximum movement. A 60 per cent excess price exists today for the same reason. In dull season the industry loses money. The constant movement of the industry from famine to feast renders it most speculative and leads to over-expansion.

Second, in time of car shortage the railways are compelled to divide the cars on some basis of equality among the different producers. This gives equality of cars to the high cost producer and largely destroys competitive action, keeps the high cost mine in the field, and maintains over-expansion.

Third, in maintaining all the mines, the equality of car distribution gives them only intermittent employment. Overhead costs are greatly increased.

Fourth, with intermittent employment, labor endeavors to build up an annual income out of short time employment, which has necessarily pushed the day's wage and piece-work rate to very high levels.

Fifth, some fringe of the workers are of necessity underpaid, as no basis of day's pay could be devised that would give an annual living to the borderland of workers who have the lowest numbers of days annual employment. From this fact flow the discontent, unrest, misery and difficulty which fundamentally bring about strikes and violence.

In summary: The public pays 30 per cent more for its coal than would be necessary in the free flow of competition; the industry is speculative and intermittently unprofitable to the operator; labor is in constant difficulties; some part of it underpaid, some part overpaid in comparison with farmers or other workers.

The remedy lies in more transportation and also in storage, especially by the railways, in slack periods. There are other causes and other troubles, but their part in the bad functioning of the industry could be better analyzed if we first had transportation enough.

WASTE IN COAL[1]

"Waste in industry" is becoming an increasingly familiar term in the every day parlance of newspaper and magazine writers. Only a few years ago radicals and socialists were practically alone in talking and writing about wasteful production and distribution under our capitalist regime. At present, the conception of waste in industry seems to have gone so far as to induce Congress to appropriate $200,000 to bring to light all the

[1] By Louis Bloch. American Labor Monthly. 1 : 51-7. March, 1923.

facts concerning the wastefulness in the management and operation of the coal industry. Labor is forging ahead. By applying the pressure of its concerted action, it has compelled the government to acknowledge that at least one of the country's basic industries is so poorly handled that a thorough investigation is urgently needed. It is quite safe to say that were it not for the coal miners' two general strikes within three years, there would now be no Fact-finding Coal Commission.

The appointment of this commission indicates a decided change in the minds of our Congressmen since the miners' first general strike in November, 1919. When toward the end of that year the miners' union decided to stop digging coal until better working conditions were obtained, their demands were not only met by the usual avalanche of hostile criticism from the public press, but they were also met with violent denunciatory outbursts of indigestion from the honorable servants of plutocracy in Congress assembled. Glaring indications of the lack of information relating to the fundamental problems worrying the coal industry were spread over the Congressional Record during the first miners' strike in 1919. But, about three years have elapsed since that strike, and only now, after another general strike, Congress has been forced to concede that there is something genuinely wrong with the coal industry itself.

Acknowledged Demoralization

That the spokesmen of the coal operators do not admit that there is anything wrong with the industry is evidenced by their published reply to the questionnaire of the Fact-finding Coal Commission. This commission addressed a series of inquiries to the National Coal Association, the coal operators' industrial union, of which the following was one question: "What, in your judgment, are the elements that have caused, and are causing, the acknowledged demoralization in the coal industry and

which are working hardship alike upon the parties engaged in the production of coal and the consuming public." To this question, the coal operators' association replied as follows: "In our judgment, the bituminous coal industry cannot fairly be said to be in a condition of 'acknowledged demoralization.' In spite of the recent difficulties, the industry in the main is neither unwisely nor inefficiently conducted and the services rendered to the public will, we believe, compare favorably with that of other industries in the country." Let us examine some of the facts concerning the conduct of the industry. We will first look at its size and its relation to other industries.

The Basic Character of the Coal Industry

The demoralization of the coal industry is especially significant in view of the basic character of the industry. Coal is the "life-blood" of our industries and commerce. Without it, and in the absence of adequate substitutes, our present civilization is inconceivable. Over six hundred thousand men are employed in the production of soft coal in the United States. About one hundred and fifty thousand more are employed in the production of anthracite coal. Bituminous coal, or soft coal as it is called, is used primarily by manufacturing establishments and railroads. Thus, industrial concerns, including public utilities, and railroads use nearly two-thirds (65 per cent) of the country's annual consumption of coal; while only about 12 per cent is used for domestic purposes. In years of normal industrial activity, the country uses approximately five hundred million tons of soft coal, which means that the consumption of coal per capita is over five tons.

Growth of the Soft Coal Industry

The growth of the coal industry, like that of other industries, is best measured by increases in production.

From an average annual output of about one hundred and twenty-one million tons during 1890-1894, the industry reached an average annual output of about five hundred and seven million tons during the years 1915-1919. But this phenomenal increase in production was not the result of careful plans of production and distribution laid out in advance by our captains of industry. Quite the contrary. It was the result of an uncontrolled scramble for possible profits, stimulated by the prevailing conception that competition is the essence of industrial and economic progress.

This scramble for possible profits has resulted in the opening of too many mines. In 1902, there was 5,652 bituminous coal mines in operation. In 1909, this number increased to 6,016, which represents an increase of 6.4 per cent. In the decade following, the increase was considerably greater. Thus, in 1919, there were 8,282 bituminous coal mines in operation, or 2,186 mines more than in 1909,—an increase of over 36 per cent.

Capacity Versus Needs

This increase in the number of coal mines has resulted in an unnecessary increase in the industry's capacity for production. It is generally conceded that the soft coal industry is overdeveloped in that its capacity for production by far exceeds the normal coal requirements of the country. It has been estimated that the annual capacity of the mines to produce coal surpasses the country's normal needs by about one hundred and eighty-one million tons. In other words, the soft coal mines are equipped to produce about 36 per cent more coal than the country requires.

The excess of capacity over normal needs represents a surplus of many thousands of men employed in the industry as well as of millions of dollars of wastefully invested capital. Judging by available records of individual production, it is estimated that the soft coal in-

dustry is overmanned by about one hundred and ninety-two thousand miners. It would take about this number of miners to produce the one hundred and eighty-one million tons of coal which represents the excess of capacity over production. The overmanning of the soft coal industry means in terms of economic waste that about 32 per cent of every one hundred miners employed in the soft coal industry might have been employed more productively in some other industry or industries.

Irregularity of Employment

It should not be understood that thirty-two miners out of every hundred never work. The surplus of men in the industry means that the army of six hundred thousand miners employed in the industry work irregularly, working more steadily when the demand for coal is at its height. Available records indicate that the number of days worked by miners each year have been growing less with each substantial increment in the number of men employed in this unfortunate industry. It appears to be an established fact that the soft coal miners work about one hundred and seventy days a year out of a possible three hundred and four working days in a year. The remaining one hundred and thirty-four days, the miners are willing to work to keep their dinner buckets full. If the wage-earners in this industry could work steadily one hundred and seventy days a year and go fishing the rest of the time, life for them might not be so difficult. But as things are ordained in most industries, when workers are out of work, they are compelled to spend their leisure time looking for jobs.

The fact that there are too many coal mines means that irregularity of employment is inevitable. The situation from the standpoint of the miners is further aggravated by the fact that their opportunities of finding employment elsewhere during idle periods are very much limited. In the first place, most miners live in coal min-

ing camps or in coal mining towns where nothing happens besides coal mining. No other industrial activities are present in such communities. And, in the second place, it should be remembered, that the miner is always subject to a call to work. He must rise every day early in the morning, often when it is still dark, to learn whether he will work that day. It often happens that after the mine whistle signals the miners to come to work, they find, upon coming to the mine, that no railroad coal transportation cars will be available and that consequently there will be no work that day.

Car Shortage and Coal Prices

While in the soft coal industry, the winter months are known to be the busiest months, the miners are even then working irregularly. The causes of irregularity of employment during the winter months are epitomized in the oft-quoted term "car-shortage." That is, shortage of transportation facilities is generally said to account for intermittent employment during the cold months of the year, when the weather is below zero and coal prices are far above it. There is no doubt that many of the coal operators realize that the shortage of railroad cars to transport their coal to the market is of advantage to them. High prices of coal obtain during the winter months because there are not enough railroad cars available to haul to the consumers all of the coal that the mines can produce. If all of the operators could get all of the cars they clamor for in the busy months, many of them would, no doubt, soon find their orders curtailed because of a glutted market. Under the prevailing system of car distribution, mines are rated according to their production records and the available supply of coal cars is distributed according to this rating. As a result of this system of distributing coal cars, the coal of the smallest mine is brought to the market together with the coal of the largest mine. And the obvious effect of this system on coal prices is that the prices charged are those which

must yield a profit to the highest cost mines. The lower cost mines, which are usually the largest mines, are enabled to reap exceptionally high profits. The consumers are called upon to pay the bills, while the miners are left to shift for themselves as best they can.

Waste of Coal

Overdevelopment in the soft coal industry has thus far been described in this article to represent a surplus of investment of human labor and of mine equipment. It was also pointed out in the preceding paragraph that owing to the prevailing system of coal distribution, the consumers must pay coal bills calculated to yield profits to the highest cost and least efficient mines. These charges against the conduct of the soft coal industry appear damaging enough. However, the social and economic waste in the coal industry do not stop with these charges of incompetency. It has been estimated, from time to time, that from one-third to one-half of the coal is wasted in the process of getting the coal to the surface. Our coal operators, like most of our captains of industry, are interested primarily in getting profits out of their business enterprises. And if more profits can be had by getting less coal out of the coal mines, so much the better. Only the thicker and more accessible veins are exploited, because it costs less per ton to work these veins of coal. Conservation of natural resources might be an interesting problem, but for the present at least, the solution of this problem as applied to the soft coal industry does not seem to promise profitable returns. Hence, the problem is left to academicians, while our coal operators go merrily on wasting hundreds of thousands of tons of coal, leaving them underground never to be recovered.

Waste in Distribution

Not only is there waste in getting the coal out from underground but there is apparently also waste in trans-

porting this commodity above ground. A certain quantity of coal, known as semi-bituminous coal, which is of superior quality for steaming purposes is annually transported from Pennsylvania and West Virginia to the great lakes. There appears to be sufficient economic justification for the hauling of this coal over long distances. But one wonders why coal of the same quality produced in Illinois and Ohio should be hauled from Illinois for consumption in Ohio and vice versa. Again, coal produced in distant states is hauled over long distances to be consumed in New York, in spite of the fact that New Yorkers would be better off economically if they got their supplies of coal from adjoining states, such as Pennsylvania and West Virginia. During the war, the government could not afford to see this waste in the cross-hauling of coal go on indiscriminately. It, therefore, called a halt to it by establishing zoning districts which eliminated some of the useless waste in cross-hauling. But after the war, things were let loose again and the waste in the distribution of coal was resumed as in the good old days, before the war. Under the present system of coal distribution, salesmanship appears to be the only reason for the stupid and uneconomical shipments of hundreds of thousands of tons of coal from state to state.

Waste in Earnings

Not only does the soft coal industry force miners to waste time by compelling them to lose annually about one hundred and thirty-four productive working days around the mines, but the industry also wastes the miners' earning ability. By affording the miners only part-time work, the industry only affords the miners part-time earnings,—a fact which is responsible for the recent coal miners' general strikes. The effects of irregular employment upon earnings are too well known to require detailed elaboration. If the miners were able to work all year round, their annual earnings would be at least 25

per cent greater. It is estimated that the average annual earnings of the Illinois miners in 1918 were about $1,390. In that year, which was the year of record breaking coal production, the miners of Illinois worked only two hundred and twenty-eight days. If they could work all of the three hundred and four possible working days in that year, they would have earned on the average of $1,854, or $464 more than they actually earned that year. The Ohio miners, according to available estimates, fared even a little worse than their Illinois brothers. The coal diggers in Ohio averaged in 1918, $1,364 and worked two hundred and twenty-four days in that year. Had they worked the full year, their annual earnings would have been greater by $487, or 26 per cent. The year 1918 was one of industrial prosperity. But in spite of this, the miners were not able to put in a full year's work. In years of industrial depression, such as in 1921 and 1922, the difference between actual and possible full-time earnings are much greater. In order to live the whole year round, even when work is not available around coal mines, the miners' union has been trying to increase the rates of wages paid in the coal industry and to maintain standards of living already obtained. Until the industry is fully reorganized and is put on a sane and economically sound basis, we may expect more general strikes in the coal industry.

Waste of Lives

In addition to its other wasteful proclivities, the coal industry is inexcusably wasteful of human lives. During the ten years, from 1911 to 1920, the coal industry killed off 24,662 miners. In round numbers, the industry succeeds in killing off annually about twenty-five hundred men. The number of miners injured is, about ten times the number killed. Altogether the coal industry is chargeable with killing and injuring annually about twenty-five thousand persons. In England the mortality rate in coal mines is only about one-third that of the

United States. In fact, in no other civilized country and in no other industry, is such a frightful toll of human lives taken as the price of production. The miners who work underground sustain a disproportionate loss of lives. About eighty out of every hundred miners are employed underground, but out of every hundred fatal accidents about ninety affect this class of miners. Although coal mining is essentially a hazardous industry, there is no justification whatever for this wholesale slaughter of men depending upon this industry for a livelihood. The soft coal industry is a competitive industry and as such it is entirely apathetic to questions bearing upon the destruction of human lives or the destruction of natural resources.

Conclusion

That the incentive for private gain develops industries is conceded. The bituminous coal industry is an example of an industry developed as the result of incentives for private gain. This industry stands out as a model of the much vaunted efficiency of capitalist production. The conduct of this most essential and basic industry is disorderly and chaotic. In fact, this industry is not conducted at all. It is a hit or miss proposition. In 1919, there are sixty-six hundred and thirty-six bituminous coal enterprises and there were as many separate conductors of the industry. With so many conductors, all of them interested only in prices that would yield most profits, the destination of the industry is not hard to guess. In the above quoted answer of the National Coal Association to the Fact-finding Coal Commission, there is a grain of truth. ". . . The industry in the main," said the spokesman of the coal operators, "is neither unwisely nor inefficiently conducted and the services rendered to the public will, we believe, compare favorably with that of other industries in the country." At the present time, thanks to the miners' repeated strikes, the spot light is turned upon the coal industry. Many other

industries, as they are conducted under our present industrial regime, are no doubt afflicted with the same disease as is the coal industry.

BLACK AVALANCHE[1]

The typical coal mining town is not a town in the ordinary sense at all. The place where the town stands is the point at which a seam has been opened, buildings have been erected and machinery has been installed. The dwellings that cluster about the tipple or straggle along the bed of the creek are not occupied by the self-dependent citizens of a community which gives many opportunities for employment and presents a variety of facets to the world at large; they are occupied solely by the men who work in the mines. The town is the adjunct and necessary convenience of an industry; if the mines should disappear, it, too, would cease to exist. It is not even called a town in the language of the locality. It is called a camp.

No one owns his own house; he cannot acquire so much title to property. No one runs a store, operates a garage or sells groceries or haberdashery to his fellow townsmen. No one amuses them in a movie theater. There is no Main Street of small independent businesses, owned by different people, and making up that mosaic of commercial life that is typical of villages everywhere. There is little if any participation in common, group activities. No body of elected councilmen ever passes on repairs for roads, no group of people ever gets together and decides that the old school house is too ramshackle for the children or that the old church needs repainting. No family physician builds up a successful practice by competing with other physicians. No lawyer settles disputes over property rights among his neighbors.

[1] From article by Winthrop D. Lane, contributing editor of The Survey and author of "Civil War in West Virginia." Survey. 47 : 1004-6 March 25, 1922.

It is not quite accurate to say that on one does these things. The coal company does them all. It owns all the houses and rents them to the miners. It owns the store, the pool room, the movie theater, and often helps to build the school and the church. It often owns the Y.M.C.A. building, if there is one. The company employs the physician and collects a small sum monthly from each miner to help pay him. Sometimes it supplements the salary of the teacher and assists the minister in making both ends meet.

The company owns all the land and everything upon it. It therefore controls the life and activities of the little community. It is responsible for the sanitation; if sewage disposal is adequate, the credit belongs to the employer. The company's ownership sometimes extends to the roads, so that it can control ingress and egress. In some counties the company is the employer of the deputy sheriffs and is therefor responsible for police supervision. In Logan County the operators paid out $61,000 last year, as the president of the Logan Coal Operators' Association testified before the Kenyon Committee, in salaries for deputy sheriffs.

Miners in West Virginia are not paid as workers elsewhere are paid. They do not receive in cash all that they have earned. On their semi-monthly paydays they are given statements showing how much they owe the company and how much the company owes them. Among the items charged against them in this account is the indebtedness incurred by them at the company store. Other items are rent for their houses, lighting, heating, doctor's services, use of the hospital, the sharpening of tools and occasionally a charge for use of the company wash house in which to clean up after a day's work. The miner pays the same amount for doctor and hospital services whether there has been illness in his family or not. For major operations such as child birth and other important surgical treatment, additional sums are paid. Rent varies according to the condition of the house, usu-

ally running from $6 to $10 a month. Lighting costs the miner on an average about $1 a month, coal for heating his house from $1 to $2, the medical charge is about $1 or $2, and hospital service cost from 50 cents to $1 a month. All of these items are deducted by the company from his earnings. The charge for food and other necessaries bought at the company store is likely to be the largest item. If the miner's credit sheet shows $79.31 and his debits come to $26.16, he receives $53.15 in cash. These are averages taken from a company pay-roll for the latter half of November, 1920. If the miner has been out of work part of the period, his debits form a greater share of his earnings. Weeks or months of unemployment, such as are now being experienced, often compel the companies to forego some of these charges and leave the miner nothing.

Miners in West Virginia still use scrip largely in making purchases at the company store. This is issued to them by the company up to the amount of their credit or earnings at the time. Scrip consists either of coupons in perforated sheets or small metal tokens rounded like coins, stamped in various denominations. Some companies accept this scrip in lieu of real money at the pool room, the movie theater and other places beside the company store. The law of West Virginia prohibits companies from issuing scrip in payment of wages, specifying that if such scrip is issued it shall be held to be "a promise to pay the sum specified therein in lawful money;" but companies generally issue the scrip. I have never heard of a case being taken to the courts to settle whether or not its use be lawful. That it encourages spending is undoubted. The general superintendent of a coal company writes: "By giving them [the men] the privilege of handling scrip in this way, much more of it is being spent and the attendance at our theaters would not be so large if we did not allow them to use the scrip for purchasing tickets."

The results of this general mode of life is that many

mining towns are unsightly, unhealthful and poorly looked after. Houses are slapped up, seldom repainted and allowed to go unrepaired. The surface privy is nearly everywhere in evidence; it is a prevalent cause of soil pollution and often stands on high ground back of the house, so that its contents are washed toward the bed of the creek. Garbage is collected with indifferent frequency, perhaps once during the hot summer months. There are towns in which tin cans cover the ground in every yard and the whole aspect is one of dreariness and the ugliness of neglect. Children find no playground but the railroad. There is not even a sidewalk. Once in a while you pass belching coke ovens, spewing their fumes and smoke from their open tops directly at the windows and doors of houses close by.

A few towns, on the other hand, are neat, attractive in appearance, well cared for. The houses are substantially built, perhaps even supplied with running water. Garbage and ashes are frequently removed. Some companies offer prizes for the best garden and try in other ways to keep the town pleasant in appearance. Children run in a playground. Here and there a company maintains a dairy herd and sells its employees fresh milk. A bank for savings is sometimes found and men who have been with the company for some time are given free insurance policies. These are the exceptional communities. They prove that it is not necessary to live in the midst of dirt and unsightliness even if you do work for a coal mining corporation.

For all of this strange type of existence there is historical and not ungenerous explanation. The first companies to come into the territory had to bring their civilization with them. Men were needed to work the mines, and men must be provided for if they are to live. Houses were built, therefore, and next the necessaries of life had to be secured. The company built a store in which it sold provisions to its employees. Children became more and more numerous; education being essential, a school

was built. Perhaps this was followed by a pool room or a movie theater. By successive stages a community was produced. But each expenditure resulting in an addition to the town's activities was made by the coal company. The company owned the land all around, and when the town was built the company owned the town. What began as a means of taking care of the emergent needs of people became a settled condition everywhere. Today four hundred thousand men, women and children in West Virginia are living this subservient existence. They are caught up in a civilization within a civilization—an alien order imbedded in democracy.

There is no escape from it for them. Its paternalism touches their lives at every point. They cannot initiate or take part in any of those little ways of controlling one's environment that are the common pride of normal small towns from New England to the mountains of the west. Any collective voice among them is smothered; they are the recipients of what others think is good for them. Many might not know what to do at first with a degree of control over their own and their group life if they had it, but the process of learning might be of benefit to them.

One way of exercising some measure of control over the conditions of their life and work has been open to them. That has been through affiliation with the United Mine Workers of America. By belonging to a labor union strong enough to negotiate with the organized groups of their employers, they have been able to insist that one of their own men weigh what they produce. They have been able to affect wages and hours. They have been able to exert collective pressure for a greater degree of safety in the mines and thus to reduce the number of maimed and broken men. In various ways they have been able to find an outlet for those impulses of self-expression that lie dormant in every man, and to improve the outward conditions of their lives. I do not know of any adequate analysis that has ever been made of the

psychological forces that lead men to labor unionism, but I do know that to miners pressed down by the pervading dependence of their existence in company towns, the opportunity afforded by unions for joining with their fellows in some kind of collective effort may seem a welcome escape.

COAL: A MISMANAGED INDUSTRY [1]

I. Editorial Summary

In its most superficial aspect the coal question is one of hours and wages, amenable to adjustment by collective bargaining. But the fundamental issues involved are beyond the compass of the diplomats of capital and labor; they demand for their solution the best efforts of the technicians of production—scientists, engineers, laborers; and every year that leaves these questions unsolved involves the country in losses compared with which the waste involved in a coal strike is as nothing.

Everyone is astonished to learn what the miners want because no one knows what they have got. To begin with, they want to rest two days in seven, but they also want to work the other five. This represents a demand for two hundred and fifty working days a year—*3 per cent to 21 per cent more days per year than miners have ever worked in the history of the American coal industry!*

The miners want a six-hour day. In 1917, when maximum production was essential, and when the mine-labor force had been considerably diluted by the substitution of unskilled men for experienced workers withdrawn for military or war-industry service, the length of the working day was reduced 4.8 per cent, the number of days increased 5.6 per cent and the total output of the mines increased 9.8 per cent. The total coal production for the country was actually twelve millions tons in excess

[1] By Walter N. Polakov. Dial. 67, sec. II: 394-404. November 1, 1919.

of what it would have been if the individual workers had produced no more coal per hour than the more experienced force produced in 1916. Within reasonable limits, productivity per man per day is inversely proportional to the length of the day. The "reasonable limit" for the mining industry is fully discussed in the engineer's report which follows.

The miners want a 60 per cent raise in wages. Before the war, in the Pennsylvania field, labor got 66 cents of every dollar paid for coal, 28 cents went for supplies and general expenses, and 6 cents remained as the operator's margin. During the war, labor's share shrank to 84.8 per cent of the pre-war figure, general expenses fell off somewhat, and the *operator's share increased 400 per cent.* If the operators would be content with *only double* their pre-war margin, they could make a 30 per cent raise in wages without transferring one cent of this burden to the public in the form of an increase in coal prices.

But suppose the miners' day, week, and wage demands are granted; and suppose that the operators actually succeed in holding onto their huge profits, and in shifting the new charges to the public—is this threatened price change the first or the greatest burden that the profiteering mismanagement of the coal industry has imposed upon the country? The answer of expert testimony is that this threatened loss, like the loss incident to a strike, is negligible by comparison with the losses involved in the routine mismanagement of the-coal-business-as-usual.

Under the present regime of business-like bungling, it is more profitable to waste nearly 50 per cent of all the coal that is minded than to save it by carefully standardized methods of operation. If the miners go on digging nearly two tons of coal for every ton made available for consumption, it is probable that the fuel supply of the country will be exhausted in one hundred years. By abandoning partly exploited mines, by leaving unre-

claimed coal in the mines that are being worked, by failing to utilize coal dust, low-grade coal, and the various by-products of coal, the managers impose upon the resources of the country a loss that amounts to five hundred million tons per year. This waste cannot be completely eliminated otherwise than by a thorough reformation of mining methods, and by the "manufacture" of coal into its various products—electric power, benzol, tar, and the like—at the pit mouth.

A problem more easily controlled, but beyond the reach of the mine operators themselves, is that involved in the wastage of the coal now consumed in scattered industrial plants and in railway locomotives. Eighty per cent of the annual product of the country is consumed in this way—and one-fourth of this amount—one-fifth of all tonnage delivered to consumers, is wasted because of faulty methods of firing.

As business is now organized, the only way to enforce economy in consumption is by raising prices—to the further profit of the prodigals who control the coal resources of the country, and the further exasperation of a hard-driven public.

The miners see only the first elements of this problem—they want to work more regularly than they have worked before, and they want more of the necessities and comforts of life than they have been receiving. The public wants coal produced with the minimum expenditure of energy and the minimum waste of material, and it wants this product used with the maximum of economy in order that it may finally yield the maximum of consumption goods.

If the operator is interested neither in the economies of production nor in those of consumption, the engineer is interested in both, and a master of both. The workers may find temporary relief in dividing the spoils with the operators. But for labor there is no permanent relief, and for the public no relief at all, except in a permanent alliance of knowledge and interest—of technicians and

workers—for the production of goods. A careful reading of the expert's report that follows can lead to no other conclusion.

II. Engineer's Report

Having been commissioned by The Dial Publishing Company to report on the outstanding causes of the present grave situation developed in the industry of mining soft coal in the United States, I have the pleasure to submit the following findings:

The data upon which the conclusions were based were secured chiefly from the Department of the Interior, the Bureau of Mines, the United States Geological Survey, and the Federal Trade Commission.

The method pursued in the investigation was principally that successfully employed by a large number of progressive manufacturers of this country, and broadly practiced during the war by the United States Shipping Board, by the Ordnance Department in some of their arsenals and in placing outside contracts, and by the Aircraft Production.

Upon the conclusion of this research the conviction was formed that the outstanding cause of the present situation, using Cardinal Bourne's expression, is "that the men are subject to irritating mis-management."

In the strict sense of the term it cannot be said that the coal operators ever managed their mines.

Selling of product: "A substantial portion of the soft coal produced is *sold through jobbers*" (United States Geological Survey II: 4, page 19) so that the operators do not manage this substantial portion of the business. The Federal Trade Commission reports that "a very large part of the output of the operator who reported no selling expenses (45 per cent) reached the consumer through the jobbers or sales agencies. Probably also a considerable fraction of the output of the remaining 55 per cent of the operators went through such channels." Also,

"marketing has presented to the producer, big or little, no serious problems. . . operators had no direct connection with consumers." (United States Geological Survey II: 4, page 17.)

Accounting and cost keeping: The Federal Trade Commission and the United States Geological Survey agree in their references to the fact that often there is "ignorance of the cost" of production on the part of the operators. Such ignorance was amply illustrated at the time when prices were first fixed. Cost Report, Federal Trade Commission. says:

> It was predicted that the output of the mines would be materially cut down if such prices prevailed, since . . . the operator (was) afforded no incentive to production. As a matter of fact there was actually no decrease in the production . . . Had it been possible for the mines in the Central Field to have been worked . . . ordinary full time with their then existing force, their actual production would have been increased 21 per cent.

Methods of work and training of employees: These functions of management are chiefly left, contrary to the practice in many more advanced industries, to the judgment of workmen—men working on contract, fixing their own tools, keeping their own records. Machine operation is poorly developed; only 56.4 per cent of coal was mined in this way in 1916, while in 1917 the machine-mined output dropped to 55.5 per cent. Wastefulness of time, of materials, and of possible output is notorious. "Under the present wasteful methods of mining. . . ," says the United States Geological Survey, II: 4,) "the cost of opening the mines is not large." The United Mine Workers of America are aware of the fact that "from 33 per cent to 50 per cent of coal resources. . . are being despoiled under (such) a system of production." (United Mine Workers' Resolution.)

The United States Geological Survey also figures out the waste in prevailing management of mines to be 50 per cent. As an inevitable consequence of this general ignorance on the part of the mine operators, a desire to safeguard their interests led them to: (a) insist on longer

hours in underground work than the conditions and requirements warrant, and (b) limit the wage rate.

As opposed to this arbitrary exercise of power by the operators, the miners demand that (a) working time be limited to five days of six hours duration per week, and (b) wages be advanced 60 per cent.

Whether or not these demands are likewise arbitrary will be discussed later in this report, although of necessity in a brief and non-technical manner.

Coal Requirements

Unlike food, coal, this most fundamental commodity, is not stored, cornered, or hoarded in any large quantities. Substantially it is produced in the quantities required for immediate consumption, since its bulk, the danger of spontaneous combustion, deterioration due to weathering, and expensive re-handling have always made unprofitable the practice of accumulation. Insignificant exceptions occur when coal is kept in cars or when distributors or consumers pile coal in their yards; but this does not apply to the coal operators, who have never solved the problem of storage. The practice at the mines is to keep men idle whenever there are not enough cars to load the day's output.

In view of these facts, barring occasions like the collapse of the railroads just before they were taken over by the government, the mines' output may be regarded as equal to the country's consumption. The amount of coal produced and consumed (the export was then less than 4 per cent before and during the war was as follows:

	Bituminous coal, short tons
1913	478,435,297
1914	422,703,970
1915	442,624,426
1916	502,519,682
1917	551,790,563

The industrial crisis into which we were rushing headlong in 1914 was reflected in the drop of coal consumption, but the war orders of the following years inflated coal consumption. A safe estimate of 1920 consumption (providing industrial depression does not continue) may be placed at five hundred and fifty million tons of bituminous coal and at one hundred and thirty million tons of anthracite.

Labor Supply

During these years the number of men employed to produce these quantities of bituminous coal was reported by the government as follows:

1913	571,882
1914	583,506
1915	557,456
1916	561,102
1917	603,000 [1]

From these figures it becomes at once apparent that there is an inconsistency between the numbers of men employed and the amount of coal produced per individual. The lowest production (1914) coincides with the largest number of men; hence we must inquire into the number of days the men were employed.

Number of Working Days [2]

The Department of the Interior published the following data on the number of days work was conducted in the mines:

1913	232
1914	195
1915	203
1916	230
1917	243 [3]

[1] Page 930. Coal in 1917, United States Geological Survey, II : 32. The most recent estimate, that published in the United Mine Workers' Journal, November 1, 1919, gives the number of employees at present employed in bituminous coal mines as six hundred and fifty-five thousand men.
[2] United States Geological Survey II : 4, page 17.
[3] Computed on basis of 5.7 per cent increases over preceding year.

During the peak year, 1918, the average number of working days, by districts, was as follows:

Pittsburgh district	260
Ohio	224
Indiana	249
Illinois	228
Average number of days per year	242¾

These conditions do not represent the average pre-war experience, as in the same districts the average number of days worked for the six years (1913-1918) was as follows:

Pittsburgh district	233
Ohio	181
Indiana	199
Illinois	201
Average number of days per year	206½

In other words, out of a possible three hundred and four working days per year, productive work was carried on only two-thirds of the time, and even during the greatest rush for maximum production, in the second half of 1917, 30 per cent of the time was wasted at the mines.

The reasons for this idleness were analyzed for the three representative states (Illinois, Indiana and Ohio). Almost one-fifth of the production was lost on account of lack of work; that is, the men were not permitted to work because the management did not provide either cars to move coal or storage to hold it. About 6 per cent of the time was lost because of one or another of managerial causes, and about 4 per cent due to "lack of help." It does not seem reasonable to complain of lack of help when the help available is idle under compulsion one-quarter of the time; yet it is just this unsystematic, sporadic management of mines that breeds unsteady industrial habits among the employees.

In other words, over two hundred million tons are yearly left unmined on account of time lost through the

fault of operators and railroads. However, no serious objections are being made to this state of affairs, for the obvious reason that the country is not using any more coal than is being mined in the remaining 70 per cent of available time. The miners' demand of five working days per week represents, with the omission of two weeks for holidays and vacations, two hundred and fifty working days during the year. As the governmental statistics show, there was never a call for so large a number of working days in the history of the United States. The highest number of days the work was going on was in the peak year of 1918, when it was two hundred and forty-two and three-quarter days in the central competitive district, while the average for six years was two hundred and six and one-half days in that district and two hundred and twenty-one days for the entire country. *It means, therefore, that the miners offer to work from 13 per cent to 21 per cent more days than they were ever called upon to work.*

Length of Working Day

For seven years, from 1910 to 1916 inclusive, the percentage of miners working eight hours per day was steadily decreasing, averaging about 60 per cent. Those working nine hours had a tendency to increase, rising from 15.5 per cent to 17.5 per cent, while the proportion of men working ten hours per day remained stationery at about 25 per cent. In 1917, when the war industries demanded increased productivity of labor, when some eighty thousand miners went to the colors and some thirty-five thousand men found more attractive and safe employment in munition factories, and so left the mines, a wise move was made which proved to be highly sucessful in increasing the productivity of labor: *The length of the working day was materially reduced.*

In 1917 all the men together worked 46,648,700 hours less than they would have worked with the longer

hours the year before. In 1915 and 1916, the country's average coal production per employee per hour was forty-eight hundredths tons; other things being equal, the reduction of working hours should have reduced the coal production if working hours were in direct relation to the productivity. In fact, reduced fatigue, more uniform work, and better pay stimulated the productivity of labor, and the year's production was 42,270,881 tons more than for the previous year, and some twelve million tons in excess of what it would have been if the output per man per hour had not increased.

Productivity of Labor

Thus the reduction of the length of the working day in this case, as well as in the experience of Lord Leverhulme and others, increased the productivity of labor. In the case of the miners this increase over the straight arithmetical proportion was very considerable. Taking the total number of tons of bituminous coal produced per year and dividing it by the number of hours *all* mine employees worked per year, we get an output ratio per man-hour. It appears thus:

1913	.41	tons
1914	.42	"
1915	.44	"
1916	.44	"
1917	.47	"
1918	.48	"

A serious error into which the statisticians of the United States Geological Survey fell was that they adopted "day" as a measure for comparison of man's productivity instead of *an hour,* and figured out that in 1917 the men's efficiency dropped 3 per cent. The misconception is obvious. It we accept the United Mine Worker's figures of six hundred and fifty-five thousand[1]

[1] See note 1, page 68.

as the number of mine workers in bituminous mines today, the output of five hundred and fifty million tons with a six-hour day and a five-day week will require a productivity per man-hour of fifty-six hundredths tons; that is, there is no question that the country's needs can in that case be supplied without any considerable change in mining methods. Care must, however, be exercised to move cars on the new production schedule.

We cannot close our analysis here, however, as during 1917 a number of other influential changes took place. First, 11 per cent of experienced mine workers were withdrawn (4 per cent to military service and 7 per cent to other lines of industry), and the industry was thus of necessity *diluted* by the one hundred and one thousand newcomers, whose comparative weakness in skill, training, technical habits, and so forth somewhat reduced the high productive efficiency of the old miners. Second, the total increase in the number of men employed in the bituminous mines was 7.5 per cent.

While the correction in the first cause may not be made precisely, the effect of the second cause can be accounted for. Productive labor in the coal industry is that employed underground, and in 1917 it represented 79 per cent of the total. This portion was increased only 5 per cent, whereas the surface labor, which only handles the coal already mined, was increased 21 per cent. Now, with the help of simple arithmetic, we may hope to ascertain the average production per underground man per hour.

1917

Total number of employees	603,000
79 per cent underground	476,370
Average number of hours per day	8.3
Total number of days work	243
Total number of man-hours per year	960,812,523
Total tonnage mined	551,790,563
Tons per man-hour	.574

Now let us compare it with the year before, when longer hours prevailed.

1916

Total number of employees	561,102
Total number of underground men (about 81 per cent	453,700
Average number of hours per day	8.7
Total number of days work	230
Total number of man-hours per year	907,853,700
Total tonnage mined	502,519,682
Tons per man per hour	.553

In other words, with the reduction of the average length of the day, the average man's productivity per hour increased in the same ratio. While the length of the working day was reduced 4.8 per cent, and the number of days increased 5.6 per cent, the total output of the mines increased 9.8 per cent.

Factors Increasing Productivity

It thus appears that with a five-day week instead of a six-day, the management of the mines will have two days per week time to arrange the business so that the loss of time and idleness due to repairs, car shortage, and so forth may be reduced and a full time of two hundred and fifty days devoted to work. This means an addition of forty-four to forty-nine days of mining work per year over the past six years' average. With a six-hour net working day (eight hours actually underground, including descent and walking "to face coal" and return) the miners propose fifteen hundred working hours per year. To meet the estimated future demand of five hundred and fifty million tons of bituminous coal, hourly productivity of each of the five hundred and two thousand underground miners must be seven hundred and thirty-five thousandths tons as against the past average of five hundred and seventy-five thousandths tons. In order that the error may be on the side of caution, these computa-

tions are based on the latest available government figures, and not on the more recent statistics of the United Mine Workers, which indicate that a much smaller increase would be required. The question now, therefore, is whether a 28 per cent increase of productivity may be expected.

The productivity of labor depends upon four major conditions apart from a score of minor ones: (a) mode of management; (b) fatigue; (c) standard of living; (d) equipment and technique.

(a) The present mode of management in a predominating majority of mines is very primitive, and such as was long ago abandoned in more progressive industries. The men are working on contract; that is, they are paid per ton mined a stipulated amount, varying from the basic rate of 84 cents, and depending upon the size of the vein and other conditions. Men are not trained in the best way of performing the work; there is no tool room; they take care of their tools themselves; there are no planning departments with their varied and important functions, and the work generally proceeds much as the vim and mood of the individual miner dictates, acting with greater or less skill.

It has been the experience of every industrial engineer that by proper attention on the part of the management to those functions that are beyond the control of individual workers, the productivity of his time and labor can be more than doubled. Longer hours are usually prevalent in industries where the management lets the men attend to various minor managerial duties, naturally requiring a considerable portion of their time which is thus unavailable for production. When the management assumes its proper share of responsibility, the men, even with the existing degree of skill and efficiency, produce vastly more per hour. While such practice has not been applied, to my knowledge, to any coal mines, there is no reason to doubt that results similar to those attained in other industries could be secured.

To illustrate the typical case of mismanagement of the mines it is enough to quote from the United States Geological Survey Report on Coal in 1917 the following passage:

> The most certain way to increase capacity is to put on more men, and, as experienced inside men (the only productive men) were more difficult to obtain than day laborers, the outside force was augmented more rapidly (21 per cent against 5 per cent), and out of proportion to the normal requirements. Under the pressure for increased output, the operators, apparently without regard to its effect in costs, added labor of any description. (Page 931.)

(b) Fatigue produced by industrial occupations has been carefully studied lately among other industrial workers, and while, unfortunately, we have no data covering mine work, it is entirely reasonable to admit that work underground, in a hot, damp atmosphere, with poor artificial light, with inhalation of coal dust and injurious gases, and under the great nervous strain created by ever-present danger to life and limb, causes a greater degree of fatigue than in the more sanitary surroundings of factories, mills, or power plants. Moreover, it must be noted here that the so-called eight-hour day in reality averages ten hours or more, as the miners spend nearly an hour at each end in going down, waiting for elevators or trains, in walking underground to the work place, and so forth, all of this time being outside of the nominal eight hours. Incidentally, one hour for dinner is of necessity also spent at work, as the perspiring man does not dare to rest underground at the risk of severe damage to his health. The experiments conducted for years by Lord Leverhulme in his Port Sunlight and other factories in England proved to him the advantage of a six-hour working day. Again, Professor Charles S. Myers, of Cambridge University, after a large number of observations on the effect of industrial fatigue on efficiency, number of accidents, and output, shows that productivity rises in proportion as sufficient rest is provided.

Dr. Fred W. Taylor, Mr. Babcock of the Franklin Motor Company, and a number of other industrial managers, have proved beyond any doubt that production increases with the reduction of working hours.

The writer's experience with the effect of shorter hours on stationery firemen (see Industrial Management, November 1919), similarly indicates that a reduction of hours from twelve to eight and further to six per day increases attentiveness, quality of work, and efficiency to such an extent as to make possible the employment of an additional shift of men, the raising of hour-wages 33⅓ per cent to maintain the weekly wage at the old level, and the payment of a bonus.

(c) While the first two factors—mode of management and reduction of fatigue—alone are more than sufficient to offset the proposed reduction of time, the effect of better living conditions cannot be overlooked. With two more hours to himself and to his family, a higher type of man cannot fail to develop.

(d) Lastly, the equipment used in a large portion of mines is not of the character permitting today a maximum output and the best conservation of human energy.

From the foregoing the conclusion is unescapable that, with the interest and good-will of the miners secured, so moderate an increase in productivity as 28 per cent is an assured possibility. Its realization requires, however, proper cooperation of the management, as evinced in a willingness to study the conditions of work and to remove such obstacles as stand in the way of securing a full output.

It might be of interest in connection with the proposal for arbitration to mention that with six days per week and a six-hour day the productivity per man-hour should be only sixty-one hundredths tons; that is, 6.3 per cent higher than the present average in order to secure with the present number of miners the output of five hundred and fifty million tons annually. Again, with a five-day week but a seven-hour day the productivity per inside-

man per hour ought to be six hundred and twenty-five thousandths tons, or 8.9 per cent higher than the present. The possibility of achieving either increase is a positive certainity even without any help and cooperation on the part of the management.

Wastage at Mines

The above analysis is based on the assumption that we need to mine as much coal during the next years as has been consumed during the peak years of feverish war production. It provides also at the same rate for lavish losses incurred under the excuse that "cost is no object" in "making the world safe for Democracy" and "a better place to live in."

Having shown that a reduction of working hours per day tends to increase the coal production, conserve our human resources, and satisfy our huge demands, we must now inquire whether it is consistent with national economy to continue the same mode of production at the rate indicated.

It is an established fact that nearly 50 per cent of the coal mined is wasted under the present form of management. It means that a mine must yield almost two tons before one ton is made available for consumption.

The causes of this wanton destruction of our natural resources are many, but the most glaring and the least excusable are these:

1. A system of mining which leaves a large quantity of coal inside the mines, unreclaimed.
2. Wastage of a considerable amount of coal dust or inferior (impure) fuel.
3. Abandoning partially exploited mines.
4. Neglecting to utilize by-products and multiple products of mines.

To visualize the extent of the losses falling under the first three heads, as incurred since 1844, we must picture to ourselves a pile of coal fifteen hundred and forty

feet wide, fifteen hundred and forty feet long, and seven hundred and seventy feet high, containing 7,541,550,000 tons of coal that never reached the consumers.

Estimates have been made that if our consumption of coal and the proportion of its waste continue at the same rapidly increasing rate, the supply will probably not last one hundred years. This means it will not outlast even our own grandchildren. The toleration of this appalling rate of destruction cannot be justified on technical grounds, for the difficulties of recovery are negligible. Indeed, the means are well known and quite simple: mines can be completely scraped of coal, and projects have even been brought forward to burn out the last remains of fuel and transform it locally into electricity without bringing it to the surface. Coal dust, anthracite "culm," and so forth, could be flushed by water through pipes into nearby power plants, or briqueted. The reason why these things are not being done—why mines are abandoned if ash content is found to be high, why various by-products are not derived—are that *under the existing mode of financing the mines it is more profitable to the private owners to throw the life and prosperity of our grandchildren away than to incur the expenses for reclamation of waste.* Indeed, no coal operator can be blamed for not mining coal at a cost of $4 per ton to sell it at a price of $2, or for refusing to clean excessive amount of ash, slate, and bone at a cost exceeding his possible margin. Neither can it be expected under the existing economic relations that mine operators will supply the territory, say three hundred miles in radius, with electric power made at the mouth of their mines, in addition to such by-products of coal as ammonium sulphate, tar, benzol, and other derivates. True enough, such a scheme at present market prices would realize them on sale from eight to ten times more revenue than does the marketing of the raw coal. Numerous difficulties of a financial, legal, and political nature,

however, would stand in the way, and Federal legislation should be invoked to remove the obstacles and realize for the nation the unappreciable values that our coal resources contain. The United States Fuel Administration has estimated that today coal suitable for coke production is being mined at a rate of one hundred and seventy-five million tons annually, yet only a small portion of this amount is thus converted into multiple products. During this process, again, enormous losses are tolerated for the sake of immediate return at a sacrifice of our future welfare. Not to mention the inefficiency of common coke ovens, the "breeze"—or the by-product of coke, which in itself is a fairly good fuel—is largely thrown away.

If five hundred million tons of bituminous coal mined yearly was manufactured even crudely at the mines, instead of being sold and shipped in its raw state, we would get available the following:

1. Five million tons ammonium sulphate; the nitrogen available in this quantity is capable of increasing wheat production by 453,165,000 bushels, based on one hundred and fifteen pounds of nitrogen to fertilize one acre.

2. One billion gallons of benzol, which is considered superior to gasoline as motor fuel. The value of this by-product by itself would be over $200,000,000 per year, and would be sufficient to transport ten million tons an average distance of ten miles.

4. Four billion gallons of tar would be of immeasurable value for the extension and improvement of rural highways.

The total value of these cumulative products manufactured from raw coal is, in rough figures, about $8,000,000,000. Since the crude product of the mine is being sold at a probable average of $5 per ton, the loss of value due to the present state of the coal industry is about $5,500,000,000 per year.

Losses in the Use of Coal

Fully 80 per cent of the coal mined is used as fuel in industries and transportation. Of the remaining 20 per cent, 6 per cent is consumed as domestic fuel, which is chiefly anthracite, and 4 per cent exported. The United States Fuel Administration, as well as all private investigators, agree that *not less than 25 per cent of industrial coal is wasted, and this loss can be prevented by more careful method of firing, without any investment in improved generating equipment.*

Preventable loss of bituminous coal in the country therefore amounts to at least one hundred million tons. Assuming now, together with the expert engineer of the United States Fuel Administration, that we have not enough experts to teach all firemen at once how to save coal, we place the amount of immediately preventable coal waste at fifty million tons per year. This amount represents 9 per cent of the total soft coal production.

A great deal of our car shortage, long working day at mines, and so forth, is undoubtedly caused by reckless, unscientific or merely indifferent methods of plant operation. Yet only the most far-sighted coal mine operators realize that their own interest coincides with the national welfare in fostering and promulgating the campaign for increased efficiency of power plants, as thereby their own coal, in producing better economic results, will fetch a higher market price.

Coal Prices

The average pre-war realized price of coal, as calculated by government agencies, appears to be $1.17 per net ton. It was gradually declining from 1913 to the end of 1915. In the winter of 1916-17 the prices were about 25 per cent above that average. After our entry into the war, the coal prices increased by leaps and bounds, and reached the highest point in June, 1917 (210 per cent), when the average spot price was $3.77. At that

time the margin realized on the sale of coal was 600 per cent higher than in 1916.

The government fixing of prices brought prices temporarily down, but the lowest figure, in October 1917, was still 180 per cent of the pre-war prices.

The wage advance in November 1917 was reflected on the advance of coal prices to an extent of less than 4 per cent, but the Fuel Administration authorized a gradual raise of selling prices until a maximum was reached in May 1918, when the average was 235 per cent above pre-war level; in May 1918 a general reduction of ten cents was ordered.

From April to December 1918 the division of every dollar paid by the consumer was such that the margin of profit was nearly 400 per cent of the pre-war average, while labor's share shrank to 84.8 per cent of its former part.

In February 1919 governmental regulation of coal prices was discontinued by executive order, presumably because the war conditions have ceased to exist.

Since November 1917, that is, for two years, no wage advance has been allowed.

Effect of Coal Prices

The coal in the United States even today is materially cheaper than elsewhere in the world. The immediate effects of this fact are important and significant:

1. It is wasted in a far greater degree than elsewhere, inefficiency of power generation in this country being notorious.

2. It creates a new and dangerous tendency of export to South America, England, Italy, and other countries.

3. It represents nearly one-third of our railroad freight.

4. It retards our development of water power.

Higher coal prices will therefore result in:

1. Conservation of our national resources;

2. Discouragement of foreign industrial competition carried on with the help our own coal;

3. Relief of railway congestion, better freight service, cheaper railroad maintenance;

4. Stimulation of development of water power resources;

5. Promotion of remanufacture of coal into multiple by-products;

6. Adoption of a plan for development of superpower stations at collieries with a net of electric transmission;

7. Extension of electrification of railways especially by hydro-electric power in non-industrial communities;

8. Generally increasing abundance of cheap power with corresponding industrial prosperity.

The popular belief that low-priced industrial fuel (such as bituminous coal) is a contributing factor in the manufacture of low-priced commodities does not stand the test of facts. During the early stage of our industrial development the abundance of coal, its location in proximity to iron ores, thick and exposed veins, and other factors stimulated the growth of American industrial activities to an unparalleled extent. The natural resources of the country were almost free for the taking, and the savage sacking of the very foundation of our future national prosperity became customary. Economy in consumption, efficiency in the utilization of apparently inexhaustible resources, received no attention. Today, with the end of our coal deposits in sight, the old reckless and wanton destruction becomes a crime against society; yet no other stimuli outside of moral considerations are at work to promote conservation, and by that we mean not *limitation of results,* but *limitation of useless waste.*

Countries blessed with older civilization and with smaller fuel deposits were forced to develop a notable degree of engineering perfection, and the high cost of fuel was by no means a secondary motive in the thoroughness with which they avoided all non-productive uses.

The use of mine refuse, briquetted coal-dust, powdered coal, lignite, turf, and so forth, received the fullest attention in Europe, in addition to the development of internal combustion engines with their nearly double fuel economy. Moreover, higher-priced fuel, as in England, made possible the conservation of human resources, and the introduction of the seven-hour day for miners; it stimulated the use of mechanical stokers, and, finally, caused the Reconstruction Committee to recommend a comprehensive plan of interconnected super-power stations nationally operated.

Review

In concluding this survey we may sum up the characteristics of the coal industry as follows:

1. Abundance of rich veins of high-grade coal caused mining methods to remain primitive and expensive.
2. It further resulted in neglect to exploit less profitable coal and other fuel deposits, thus creating congestion of centralized coal traffic.
3. Desire to place on the market low-priced high-grade coal doomed to waste up to 50 per cent of the potential supply of coal in mines.
4. Unscientific mode of management causes 30 per cent lost time, with consequent tendency to keep workers long hours during the remaining time.
5. Quasi-public spirit assumes that increase of fuel price injures industry.
6. Individual operation of coal mines detached from public service prevents utilization of multiple products of coal.

The situation therefore resolves itself into an unprecedented conflict of various social forces in two distinct planes.

The welfare of our great commonwealth makes it imperative that the natural resources be placed at the service of the society to the fullest extent known to sci-

ence and engineering; that the plundering of our mineral and human resources shall cease and that undeveloped possibilities shall be realized for the benefit of the country.

As opposed to this, the present organization for operating our coal mines is unable to render this enlarged service; for it is equipped merely to do what it does; that is, sell to the public such service as it can at a price. Since this service is inadequate, perpetuation of this regime means ruin of the country. Satisfaction of the new economic problems of the country means a modification of the present regime.

Out of this fundamental conflict between private advantage and public necessity grows a significant contest between the parties engaged in the industry. This conflict is merely a symptom, but at the same time it is a symbol.

Labor's demand for regulated employment instead of disorganized convulsions between one hundred and ninety-five and two hundred and sixty days per year points to the necessity of organized production for satisfaction of the country's needs—instead of the present muddle.

Labor's demand for a higher standard of living signifies the manifest importance of achieving higher standards in utilizing the fruits of toil and the gifts of nature.

We come at last to a vicious circle. If the wages are raised, profits go down or the prices of commodities go up. When the cost of living gets high, those of insufficient income limit consumption. Reduced consumption piles up idle charges and prevents reduction of prices. On the other hand, if wages are not raised the acute disproportion between the purchasing capacity of the people and productive capacity of industry breeds revolutions.

The answer must be sought on another plane—in organization of *production for consumption,* not for sale and the subsequent division of revenues between those who *had* and those who *did.*

The embryo of such a mechanism was tested during

the war. We ascertained the needs of our army and of the Allies. We gave the authority to those who, we thought, knew what to do and how to do it. Capable men were selected, not elected. The criterion was not the cost, neither the profit, but service in the promotion of our common aim.

This mechanism won the war. Let us use it to win the peace.

ALASKA COAL-LAND PROBLEM[1]

No acute observer of public affairs can have failed to observe a growing disposition on the part of the public to change emphasis in government from political equality to social justice. When our own government was founded it was felt to be sufficient to secure to each individual the fullest possible freedom of opportunity, and such a scheme was excellently adapted to the rapid development of a large territory having a small population. As the number of people in a given area increases, there are more points of contact and conflict; each must move in a smaller orbit, and there must be more regulation. Germany is making faster progress in industry than is any other country. The principal reason is the insistence there on team-play. In Germany there are fewer multimillionaires and more socialists (spelled with either a big or little "S") than in any other of the leading countries; but Germany wins trade and is steadily improving the conditions of life for her citizens. To some, the change from the freest individualism is welcome; to others it is intensely unacceptable. To this fundamental difference in view-point may be imputed much of the vigor with which the controversy regarding coal-lands has been waged. That present conditions in

[1] By H. Foster Bain, San Francisco, California. Paper presented at the San Francisco meeting of the American Institute of Mining Engineers, October, 1911. American Institue of Mining Engineers. Bulletin no. 68. p. 811-43. August, 1912.

Alaskan coal-fields are extremely unsatisfactory is generally recognized, but there are wide differences of opinion as to the proper remedies. Large areas of excellent coal within a few miles of tidewater remain unopened, while railroads and other enterprises import coal at a cost of from $7 to $9 per ton on the dock. In building and operating the Copper River & Northwestern railroad to June 30, 1911, British Columbia coal to a total value of $509,943, and Washington coal to the value of $49,438, was imported. The railroad and the leading coast industries have now been converted to burn oil imported from California. In the interior, the price of coal is practically prohibitory, and development of any industry requiring handling of large tonnages is impossible except at the seacoast. Industry in Alaska always will be at a disadvantage, owing to the difficulties and expense of navigation along its coasts, and of transportation into the interior. This, however, is all the more reason why full advantage should be taken of any favorable local feature, such as abundant and excellent coal.

In examining the matter of the opening of the Alaska coalfields, two distinct questions must be considered. The first, and more pressing, is how to get coal on the market quickly in quantities sufficient to satisfy immediate demands. The second is, what disposition shall ultimately be made of the coal-lands, and under what conditions coal shall be mined in the future. Both questions involve railway problems and are complicated by existing rights of coal-land locators. It is not likely that any satisfactory solution of the second problem will be found immediately. The ramifications of the matter reach such varied interests, and so many things must be taken into account, that a quick determination might well prove a wrong determination. The first problem, however, that of promptly furnishing Alaskan coal in such quantity as is really needed, seems capable of speedy and safe solution.

It has been estimated by A. H. Brooks that there is a present potential market for one million tons of Alaska

coal per year. Whether or not these figures be correct, it is undoubtedly true that there is an important market awaiting the opening of the mines. At present all the high-grade coal used on the Pacific coast comes from the east or is imported. The navy, for strategical reasons, uses only the best grade of Pocahontas coal, and when the fleet goes to sea it is followed or preceded by a long string of colliers carrying eastern coal. At all times there is a procession of boats traveling around South America in order that the battle-ships and cruisers shall have smokeless coal. Necessarily, much coal is burned in bringing this fuel to the ships, and, necessarily, also, the cost of the coal delivered is greatly above that at eastern tidewater ports, where it has already been raised by the several hundred miles of railway-haul from the mines. In case of war, the supplying of ships in the Pacific with eastern fuel would be extremely difficult and expensive. Even now the navy is dependent upon foreign tramp steamers. So far it has not seemed wise to convert the whole fleet into oil-burning vessels, because of the difficulty of buying oil in foreign ports. In the opinion of experts, the Bering River and the Matanuska coal-fields of Alaska can furnish a grade of coal excellently adapted to naval use, and the opening of mines there is important in order to afford an adequate and at all times accessible source of supply. The navy uses ordinarly about one hundred and fifty thousand tons of coal per year on the Pacific coast. Possibly the other departments of the government use as much more. In addition, there is a local market in Alaska now supplied from British Columbia and Washington at considerable expense. Beyond is a strongly competitive market, in which the dominating features are the abundance, low price, and high heating-value of California crude oil. In the three Pacific states together, in 1910, imports and local production of coal amounted to four million, six hundred thousand tons. E. W. Parker has estimated that in the same year fuel-oil displaced twelve million

tons of coal in these states. To what extent Alaska coal can enter this competitive market is uncertain, but the non-competitive market is not unimportant. In it, owing to naval requirements, the government is the largest factor. The obvious thing to do would seem to be for the government to open its own mine and supply its own coal, at the same time meeting the local demands of the non-competitive market by selling the surplus coal at a small advance on the cost of production, as has been suggested by Walter L. Fisher, Secretary of the Interior. The opening of a mine by the government in no way prejudices any future settlement of the larger problem of final disposition of the lands. It will, however, remove any fancied necessity for a hurried decision of the main matter, will relieve the local fuel-situation, will lead to just as much development, and the employment of just as many men, as if some private syndicate undertook the work, and will permit the government finally to act on the larger questions involved with exact knowledge based upon actual experience under the conditions to be met. It has long been customary for large coal-users to maintain a coal-mine, or to have an interest in a coal mining company, so as to have full information regarding costs when making their yearly contracts. For years the Chicago, Milwaukee & St. Paul railroad ran a small coal-mine on this basis, and the information it obtained was worth many times the risk of loss. Why should not the government safeguard the people's interest as carefully as a board of directors for a company looks after those of the stockholders?

Various suggestions have already been made as to how the government should proceed in case it be decided to open a government mine in Alaska. An independent commission has been proposed, but this is, I think, unnecessary and likely to prove expensive. It has also been suggested that the army be placed in charge, and the merit of this lies in the fact that the people have entire confidence in the non-political character of the army and

the honesty of its officers. The excellent work, in particular, done at Panama, has greatly raised the popular respect for the Engineer Corps of the army. It is also true that to meet a similar scarcity of coal in the Philippines, the army opened a colliery there and conducted it not only ably, but in such a manner as to demonstrate the value of the coal and of the field, and this led ultimately to the opening of private mines. The army, however, has other work than mining coal, and no good purpose is served by diverting its officers from their own sphere. Aside from that, the government has in the Bureau of Mines a corps of men especially well qualified to handle this particular matter. In this bureau are all the experienced men necessary to man a colliery, from pit-boss to general manager. Attracted by the opportunity for travel and study, an unusually capable and well-trained lot of engineers has joined the service. A better manager for the proposed enterprise probably could not be found than the chief mining engineer for the bureau who has seen extensive service in the coalfields of Colorado, Iowa, and Illinois, and has served as engineer, superintendent, general superintendent, and consulting engineer for a number of large companies. He has opened, equipped, and run a number of collieries as large or larger than any needed in Alaska, and is thoroughly familiar with coal-mining, not only in every part of the United States, but in England, Germany, and France. There are other men in the bureau who have had valuable if not as extensive experience, and they are all men of high character, of just the sort to place in charge of a difficult enterprise. Put the matter in their hands with sufficient capital and adequate authority, and the mine will be well and honestly run. Incidentally, it will furnish the bureau an excellent opportunity to test each new discovery made in its laboratories, and to try out, on a working scale under commercial conditions, its various recommendations for increasing safety and decreasing waste in mining. To the objection

that will promptly be made—the high cost of government work—it may be urged that the facts by no means point conclusively to a necessarily higher cost. The Reclamation Service has repeatedly built on force-account at prices below bids from contractors, and the great Los Angeles aqueduct is being built by the city engineers, and well built, at a cost quite as low as any firm or corporation has ever attained on similar work. On one division the work was done for approximately $2,000,000 less than the lowest bid. Incidentally the Reclamation Service itself has opened and run a government coal-mine, and done it well. Under these conditions it is hardly worth while to answer the old statement that "the government can't run a mine." It can and does. Get good men and give them reasonable support, and they will build as cheaply for the government as for a corporation. The common notion to the contrary, is based on the excessive cost of jobs let to favored political contractors.

In opening a government coal-mine in Alaska, it is important that conditions be made as nearly as possible identical with those under which a private company would have to work; otherwise one of the large purposes of the enterprise, the obtaining of exact information regarding mining-costs and other conditions, will be defeated. A definite amount of land should be reserved by the Secretary of the Interior, and allotted to the project. Since twenty-five hundred and sixty acres is the amount permitted one company under the law of 1908, the same acreage might well be set aside for the government mine. If it is too small for the government, it is likewise too small for a private company, and if large enough for one it is sufficiently large for the other. A definite amount of capital should be allotted to the project, and the coal furnished to the navy and other departments should be credited to the enterprise at the same rate as when sold to individuals. In figuring costs depreciation should be fully taken into account, since the plant will

need to be renewed from time to time. A sinking-fund should also be accumulated, and in every particular the enterprise should be run on a business basis.

Whatever be the decision as to government ownership and operation, leasing, or any other method of opening the Alaskan fields, existing rights should be adjudicated as promptly as possible. Under the terms of the Cunningham decision, if they be adhered to, it seems doubtful whether many, if any, of the claims will ever go to patent. In any event, final decision cannot be expected promptly; and what is needed now is the prompt opening of one or more mines. If any of the existing claims are valid they should be promptly passed, since the opening of a private mine or two would supplement rather than conflict with the government colliery, and would permit the latter to be devoted practically to furnishing coal for the navy and other government departments. The potential competition of the government mine would prevent any unreasonable increase in local prices, even in the event that actual competition of oil did not operate to do so.

The adoption of the plan outlined would (1) make the navy independent as to fuel-supply in the Pacific; (2) furnish coal at reasonable cost to local industries needing it; (3) permit the government to determine the exact facts as to costs and conditions of mining; (4) give the Bureau of Mines an excellent field for testing its theories and recommendations; (5) permit adequate time to be taken to adjudicate existing claims, and formulate a really satisfactory policy of handling the coal-lands of Alaska. Adoption of the plan outlined would not dispose of the main question, the final disposition of Alaskan coal-lands. I am by no means sure that a satisfactory final solution can now be formulated; and until it is clear that the right method has been found, I, personally, would favor leasing whatever acreage may be needed for the fullest development, upon terms outlined later. It should be remembered that the United

States is the owner of these and other public lands as trustee for the whole people, and Congress is the sole judge of the terms under which they may be occupied or sold. Whatever, in the judgment of Congress, is for the greatest benefit of the people of the United States, not Alaska alone or the Pacific coast, is the right and proper thing to enact into law, and what has been wisest in the past may very well not be, in the judgment of Congress, now equally wise.

Recurring to the statement, then, that as a people we are moving away from our early intense individualism, it is clear that there is now a widespread desire to protect the average citizen from extortion following monopoly, and to prevent the accruing to individuals of the unearned increment on mineral lands. The problem, as thus stated, is world-wide and it is to be faced in every industry. Its solution as regards the existing public mineral lands would be but an incomplete answer to the great needs of present civilization—(1) the realization of the benefits of large business organizations without loss of control of monopoly; (2) the equitable distribution of the surplus earnings of mankind. Solution of the Alaskan coal-problem will be at best but one small step in the solution of the general problem, and any method applied in Alaska and based upon government ownership of the land can be of but small immediate importance, since for many years to come the people of the United States will draw the bulk of their fuel from fields that have already passed into private ownership. It is true that approximately one-third of the known coal is still owned by the general government. This, however, is undeveloped. The practical question is, whether it can be opened under regulations that will rectify mistakes flowing from past policies, or at least prevent similar mistakes in the future.

The great anthracite-deposits of Pennsylvania are already in the hands of a monopoly, and in a large measure

the enhanced value of the land has already gone to the individuals concerned in organizing and maintaining it. There is no question but that the industry has been benefited, but there is widespread popular dissatisfaction with the control exercised, in this case by private individuals, and the government finds itself estopped from effective regulation of the industry by the fact that the lands are owned privately. Recent efforts of the government to enforce the Sherman Act, while nominally successful, seem to have proved barren of actual result. In the bituminous coal-mining industry, on the other hand, where intense competition is the rule, conditions are chaotic and intensely unsatisfactory to everyone except those large users of steam coal who put low price above every other consideration. The average citizen who buys in small quantities is already paying high prices. By stringent anti-monopoly laws, the tendency toward monopoly was halted before the bituminous coal-mining industry became completely organized. It would, however, be extremely difficult to reach a fair and disinterested conclusion as to whether, from the point of view of the general public, present conditions are more unsatisfactory in the anthracite or the bituminous fields. Low prices do not tell the whole tale. Wasted capital, wasted coal, low wages, and lost lives, the formation of a large class of permanently discontented workmen—all these must be counted against low prices of coal used by railroads and power companies, granted even that low prices to the latter mean some benefit to the ultimate consumer of transportation and power.

An instructive lesson may be drawn from the anthracite-fields. Many persons forget that for years coal was mined and sold there under fiercely competitive conditions. At a time when it cost but $1,000 to open a mine, and $10,000 sufficed "for quite a respectable business," many rushed into the industry. Overproduction worked the inevitable result of low prices and no profit. Since,

however, there was a profit to the railroads in transporting the coal to the market, mining was stimulated by loans from the railroads to the struggling coal companies. Eventually the railroads had to take the mines to protect their loans, and then discrimination in rates and service became inevitable. In time the cost of opening mines rose to almost prohibitive figures, and no one could afford to invest the large sum necessary unless he also controlled transportation. All these factors worked together to produce the inevitable result, a monopoly of anthracite-mining in the hands of the railroads. From many points of view the results have been excellent. The properties, however, are operated, not for the sake of the mines, but for the railroads, and a great national industry is subordinated to the immediate necessities of a group of roads. For many years there was no profit in the actual mining of anthracite; probably there is little now. Millions have been paid in royalties to fortunate owners, more millions have been made in the business of transporting and marketing the coal; but in the business of mining there has been no considerable profit. There has always been a surplus of mines and of railroads in the anthracite-fields, and, the larger capital being invested in the railroads, it was inevitable that they came to dominate the situation. The state and national legislators never aided the industry by constructive legislation based upon any real consideration of the larger problems of the people and the coal. When they acted they merely pecked at the industry with petty restrictive acts. The net result is a firmly-seated private monopoly of a great national resource.

In the bituminous coal-fields the story is similar to that of the anthracite-fields in the early years—an abundance of coal and of capital, investments made on the basis of an inflated industry during "boom" times, overproduction, idle plants and men, wasted money and coal, attempts of the railroads to control production, each in its own interest, and the formation of monopolies in

limited areas. The tendency toward a larger monopoly has been checked by anti-monopoly legislation and the regulation of interstate commerce. In the meantime many idle colliery-plants stand gaunt and rusting in the valleys and on the prairies, and an idle plant does no service for any man. It is useful only as a club in considerations of rates and prices. Clubs, it is well to remember, are the weapons of the stone age.

The two industries exemplify the effects of combination on the one hand, and of competition on the other. In 1891, under competitive conditions, anthracite sold at the mine for an average price of $1.73 per ton. In 1910, under monopoly conditions, the price had risen to $2 per ton, an increase of 16 per cent. In the same years bituminous coal, under competitive conditions, rose in price from $0.99 to $1.12 per ton, an increase of 13 per cent. These figures are no measure of retail prices, but it is evident that whatever may have been the effect as regards consumers, the creation of a monopoly in the anthracite-fields has benefited producers of coal more in other directions than by increase in price. It is important to remember in this connection that the cost of selling and delivery is a large element in the retail price of coal, as of other products, and often the buyer of small lots imputes to the original producer charges that originate long after the coal reaches the top of the ground.

It seems clear, on the whole, when the two industries are contrasted, that combination rather than competition yields better results. To secure its full benefits without injury to the public is the real problem, and some form of public control is evidently desirable. The simplest form of control yet found is ownership. It does not follow that public ownership of all the coal-mines is either desirable or necessary, but, so long as the government already owns one-third of the coal-reserve of the nation, this coal should not be allowed to pass into private hands until some adequate means of meeting the problems outlined has been found and tested. It has repeatedly

been proved that ownership of a majority of the stock is not necessary in order to control a corporation, and a holding of one-third of the coal is so much greater than any possible combination of lands privately owned, that, particularly in combination with its other powers, the government can determine absolutely the future of the coal-business of this country. The government ought not to sell the coal-lands until the whole matter is settled. In the meantime, all the demands for development can be amply met by a simple leasing-system, such as has been proposed by the administration. There is no benefit to be derived from locking up the coal-lands in either government or private hands, but to sell them irrevocably, at nominal prices and in quantities in excess of the needs of present development, is on a par with the giving of perpetual franchise for municipal utilities. The leasing-system may or may not prove the correct procedure as a permanent policy, but for the present it has many advantages over any other.

The problems that now confront our bituminous coal mining industry arose a few years ago in the same form in Germany. In that land of orderly industry, the coal business was in as bad condition as was ever that of Pennsylvania or any other American state. There was this difference: the Prussian government, as the owner of many miles of railroad, was concerned, in place of, as in America, a group of private individuals but, further, the government there did not, as here, own a large part of the known coal. Difficulties in railroad-operation, as well as the general disorganization of industry, focused public attention on the coal industry. The state railways sometimes enjoyed cheap coal, and at other times paid dearly for it. At times the lines had much traffic, and at other times little. For short periods the collieries made large profits, and these periods were succeeded by long lean years. The methodical Germans studied the situation, and then met it in a practical manner, undeterred by theoretical considerations of what might happen. The

government purchased enough mines to give it control of approximately 40 per cent of the coal-producing capacity of the country. Then, on the basis of the ownership of these mines and a thorough knowledge of the business, the government joined in a syndicate for mining and marketing coal. While there has been some criticism of the results, there has been steady work, moderate but regular profits, and better prices. English coal companies, it is true, have made inroads on the Berlin market, but the Germans gaze with equanimity upon this. They regard the low-priced coal furnished by competing English companies as just so much gain. Germany has regulated the coal-monopoly by becoming a party to it.

I am among those who believe that "trusts," meaning thereby large business organizations, are inevitable. The conditions of modern industry favor them, and their economic advantages outweigh their evils. It is not necessary, however, to allow them to proceed unregulated, and to do so is as foolish as to follow unrestricted employment of any other new device, such as automobiles or wireless telegraphy. Trusts need regulation, but if business is to be conserved, it must be by informed and sympathetic regulation. The best way to control a trust is through the board of directors. Even a minority there will be listened to with respect, and suggestions, if sensible, will be adopted.

In Alaska the conditions of industry are naturally adverse. It is extremely difficult to successfully develop an enterprise, and only the most efficient form of organization can hope for more than sporadic success. The coal-fields may be developed more quickly, economically, and efficiently by a single great syndicate than by a number of small warring concerns. The first step in the solution of the Alaskan coal-land problems should be the opening of a government mine, primarily to supply the government needs of coal. If necessary, the government should build the needed railway to the mine. The second step should be the opening of private collieries on leased

ground, and the formation of a selling syndicate to prorate all contracts. The government itself should be a member of this syndicate and should be represented in its management by an expert resident official of ample authority. If any of the present claimants of lands succeed in getting patents, they should be invited to become participants in the syndicate, and they would probably find it greatly to their advantage to join.

The immediate thing is to provide for mining some coal now and still leave the policy of the future to be shaped to meet its own needs. This seems to me to be most easily accomplished by following the opening of the government mine with an offer of a limited number of leases to any one who may care to undertake the risks involved in opening collieries in Alaska. These risks, from a business point of view, are bound to be large for many years, and the government in offering a lease should be prepared to safeguard in every reasonable way the lessees as well as the public.

Leases should be granted upon liberal terms, fixed in advance, should run for a period of preferably twenty-five years, and should cover in each case sufficient area to permit continuous operation of a modern plant through the life of the lease. The Mining and Metallurgical Society has suggested a lease for all the coal in the ground, with a minimum required production that rapidly increases with acreage, in order to afford security and yet not permit holding ground for speculation. There are many possible ways of meeting this problem, and any one of several will prove satisfactory, provided it be clearly announced in advance and remains unchanged during the operations of the lease. The royalty should be low, since a healthy industry is more important than revenue to the government, and it is no proper function of the government to make money out of one industry or class of citizens to the profit of others. The number of leases operated at any one time should be restricted to correspond to the probable market for coal. When-

ever, however, the existing collieries become unable to supply the demand, or the profit on the business for two successive seasons amounts to more than a fixed percentage on the capital invested, due allowance having been made for maintenance and sinking-fund, the government should offer additional blocks of ground for lease, and the new collieries, when open, should become members of the selling syndicate and should receive their *pro rata* of contracts. Leases had best be let by competitive bidding. By this method the companies would fix their own royalties. In the initial competition they should be allowed to offer alternative bids based upon the number of leases that it may be decided to let. Clearly, a company having the whole business can pay a higher royalty than one which must divide the trade with others. It is true that competitive bidding has disadvantages as compared with assignment by lot or in order of application, but among those familiar with the business and having the capital to carry out the terms of the lease, bidding would be equal, and there can be no advantage in having others undertake to open collieries.

Until the California oil-fields begin to show signs of depletion, it is not likely that development of an Alaska coal-mining industry will be rapid, but under the plan suggested above, every opportunity would be afforded for opening mines as fast as the market could be developed, and that without sacrifice of any interest, present or future. Such a complete change in policy should not be attempted on too large a scale at once; and for that reason it is suggested that the plan be applied to Alaska only at present. If the results prove satisfactory the same system can be extended to the remaining coal-lands in the states, and there can be little question that a selling syndicate of this sort could bring to the bituminous coal industry all the benefits now apparent in the anthracite region, without sacrifice of public interests. The advantage of the leasing-system is that it does not unduly commit the future of the industry, and as new leases

came to be given from time to time the companies would offer higher royalties if the business warranted, or the price of coal would fall. In either event the "unearned increment" would accrue to the public rather than to private individuals. The plan does away with speculation in the land, which is exactly what it is designed to accomplish. It limits the amount of speculation possible in leases by fixing a maximum profit that may be realized. By way of compensation it also limits the chances of loss by restricting competition, and by throwing on the government much of the expense of pioneering, in that the government mine, to be opened first, must have transportation-facilities, and later comers may enjoy these equally with the government. It meets or attempts to meet the western objection to leases, namely, government from Washington, and constant interference as to details, by requiring the terms of the lease to be fixed in advance and that leases shall only be canceled in the same manner and on the same grounds as are private contracts. A further important feature of the plan is a resident official with ample authority to exercise the somewhat limited discretion proposed. No attempt is made to fix prices. These will be determined by competition of Canadian and American coal, California oil, and the cost of hydro-electric power. The limitation is as to profits, and that is to be enforced in the normal method by bringing in additional competition when profits become too large. An orderly rather than speculative method of setting this force into play is provided. The official whose duty it will be to offer new leases will be fully informed as to the facts and must proceed according to fixed conditions known in advance. Finally, his judgment will be put to test, since, unless the showing of large profits or insufficient supply be satisfactory, no competent bidder will be found when the leases are offered. In the meantime the producers are protected against cut-throat competition among themselves, the power of the government is available to compel fair transportation-rates, and the selling of the product, the most difficult and delicate part

of the coal business, is in the hands of the companies and not of the government. The plan provides for placing the producing companies upon the best economic basis that competition of other fields will permit, and under these conditions they will be prepared to mine coal according to the best practice that is now possible. Conservation of coal and protection of life in the mines must be enforced through the police power of the state and regulations directed to that end must be matters of law. In order to secure good regulations and their vigorous enforcement, however, the operating companies must be placed in a satisfactory financial position. This is only possible when they are protected against unfair competition and unreasonable capitalization.

It is too much to assume that any plan will prove entirely satisfactory, but the above is offered as one which at least takes account of the difficulties and provides means of meeting those that can be foreseen.

INDUSTRIAL DEMOCRACY [1]

The war was the tremendous climax of the long struggle between irreconcilable conceptions of society, the autocratic and the democratic. In this protracted conflict, Mr. Plumb finds truly the American revolution to be the earliest significant phase, the French revolution its next great battle and the recent war the world wide clashing of the two forces out of which autocracy emerged battered and beaten.

The political, military, and social autocracy that had ruled Europe so many years can never be restored; it is crushed forever by the war. But financial autocracy remains, has gathered to itself the bruised fragments of the other phases of autocracy, and now evidently intends to re-establish and entrench itself, under new forms and a mask of democracy, re-asserting its old sway over the lives, labor and liberty of mankind.

[1] By Charles Edward Russell. From a review of Glenn E. Plumb's "Industrial Democracy."

To an analysis of these forces and events, Mr. Plumb devotes his masterly first chapter, "The Collapse of Autocracy." What surviving and rejuvenated autocracy is now trying to accomplish in so many countries is the cause of the black cloud of dread that hangs over them, the source of that fear of war that shakes their thoughts and disturbs their lives, and in the end a thing that will be as perilous to the autocrats themselves as to the people they seek to enslave.

The only possible finality of their efforts will be a state of universal chaos in which the enslavers will starve equally with the enslaved, and starve among the ruins of their own system and all others.

This is not so much asserted as shown. As yet the autocrats do not perceive it nor guess it because their eyes are intent upon the profits ledger and the day's takings. But Mr. Plumb wisely points us back to the pregnant subject of the European debts, the things we always overlook when we venture into these dark and gloomy regions and yet the things that in the end must determine all.

The threatened breakdown of modern civilization is not the result of the late war. Instead, the war itself was the inevitable result of economic decay and political disintegration that have been going on for a hundred years. This process began in the collapse of the autocratic political and industrial institutions that were built upon the ruins of feudalism in the period preceding the French revolution, which marked the beginning of a world-wide uprising of the common people against all forms of autocratic oppression. But autocracy was reestablished on the basis of wealth through the control of natural resources, commerce and finance. The pre-war governments were dominated by this new interest.

The similar salvaging of autocratic wreckage would result in another convulsion, only far more terrible, widespread and calamitous.

What, then, is the safeguard against this great disaster,

and where lies hope? There is but one remedy, and it is the sure, firm, deliberate and logical working out of a feasible plan to apply this remedy that makes the final value of the book. At a time when a miserable pessimism has seized upon some men that ought to know better and a still more miserable cynicism upon other men that know nothing at all, we may rejoice unfeignedly to come upon a man with a vision and a clear message to tell of it. The world is not lost and the bottom is not out of everything and mankind is not going back to the jungle and skin clothes again. In this emergency as in so many others the sign of rescue is to turn to the one enduring source of all real civilization, which is the democratic principle, the well-spring of progress.

Autocracy is reaching out to master industry for autocracy's own greater profit. Industry need not be surrendered to the autocracy that would in the end wreck it and us. Industry can be rescued, the debt load can be carried, the interest charges can be met and the world get again to its feet if we will but substitute the common welfare for autocratic profits as industry's avowed object.

This ought to be its real as it is industry's only legitimate and rational purpose, anyway. We do not reasonably mine coal, nor weave cloth, nor grow wheat that a few great fortunes may grow greater, but that mankind may be warmed, clothed and fed. At present the chief concern of those that control and manage industry is to wring from it return upon the capital said to be invested in it. This capital we commonly regard as consisting only of so much money; and we commonly think of the men that have placed this money in the stocks of the producing enterprise as the only investors therein. This is a huge error. The men that devote to production the labor of their hands and the trained skill of their minds are as truly investors as those that put into it so much cash.

One man devotes five years to learning how to do

well one process in production. That is his capital. Another devotes five years to saving a handful of money. That is his capital. One man's capital ought to be as good as another's.

What is needed is to recognize this truth, admit the labor investors to a share in the control of industry and allow them dividends like other investors on what they have put into the enterprise.

And would this meet the world crisis precipitated upon us by the world debt and the machinations of world autocrats?

It would because it would insure productive efficiency, which industrial autocracy assassinates. Next because it would insure industrial peace where autocracy provided only strife. And finally because it would stop the appalling waste that always attends upon autocratic control and nullifies man's efforts to make the world's production equal the world's needs.

He not only shows that this change ought to be made, but shows how it can be, here in the United States even under our present Constitution and system. The Constitution clothes Congress with full power to regulate commerce among the states. Mr. Plumb would have Congress use this power to defeat autocracy and make industry democratic.

We may take the coal industry as an illustration. Ninety-five per cent of the coal mined in the United States is sold outside of the state that produces it. Nearly all the mines are operated by corporations. He shows the vast and criminal waste of the present control of our coal supply, managed for individual profit and not for the common good; huge over-capitalizations, concealed ownerships, duplicated efforts, holding companies, extortionate charges; on one side the owners, who are chiefly great financial interests, waging war to reduce the mine workers to slavery; on the other, the mine workers waging war to preserve their liberties; between them the public with scant and high-priced coal stocks, or none

at all. Let Congress then refuse to allow in interstate commerce any coal that has been mined by a corporation not organized democratically, after this pattern:

Investors of money in the enterprise to have transferable stock in it, with the property of the corporation as security. Investors of labor in the enterprise to have untransferable stock in it, entitling them to dividends and to a vote in the management equal to the other class of stockholders. Wages to be a first lien. The rate of dividends to be limited. All profits above that rate to constitute a surplus, of which one-half is to be the property of the corporation, the other half to be used for the public benefit either in improving the facilities or in retiring the capital. All these operations to be subject to the supervision of a commission, appointed by public authority.

It is not possible here to give more than a crude sketch of this most interesting suggestion. Mr. Plumb in his book has worked it out to minute details in ways that will arouse the admiration if not always the acquiescence of the economists. He shows how the principle might be applied to other industries. Transportation, of course, is somewhat different and requires a different treatment. Public highways cannot properly be privately owned. Therefore the author applies to the crucial railroad problem in America the solution contained in the original Plumb plan, the government to acquire the railroads on a valuation to be fixed and the management to be shared among representatives of the employees, the public and the railroad executives. But industries aside from those of transportation that are now carried on by corporations could easily be reorganized on the lines indicated for coal. The corporation, he shows, is in itself a device that makes for efficiency; its evil is only in its control by the great financial interests to further autocratic supremacy. When the corporation is so controlled that its workers share in its direction and profits it becomes a social boon instead of a blight.

With skill and wisdom he discusses the effect of these changes upon agriculture, the marketing of products, foreign trade, international relations, and finally their profound assurance of universal peace. Truly he points out that the clashing interests of financial autocrats is now the world's deadly menace of war and industrial democracy the world's only buttress against that imminent threat.

"We can have industrial democracy whenever we want it. It can be secured by united action, wholly in accordance with the principles upon which our nation is founded, and in agreement with the traditions that all Americans cherish. There will be no revolution; no violence; no appeal to class hatred; no disruption of our natural life; no experimenting with untested economic, social or political theories—only constructive cooperative action on the part of all that have faith in our common humanity."

AN INDUSTRIAL PROBLEM [1]

The existing industrial system is crashing about our ears. The natural wealth of this country is far beyond computation. Its organized productive capacity exceeds all present demand. Large and increasing percentages of its workmen are now engaged in the production of non-essentials, which they themselves cannot purchase. Profits are exacted from the essential industries whose products are consumed by the workers in order to support industries whose products they cannot enjoy.

Labor is treated as a commodity to be purchased at the lowest price obtainable in the market, just as are all the products of labor, things transferable in the open market. Capital, which labor has produced in the past in excess of its living demands, is concentrated in the hands of a few, who had no part in its production. This capital represents not only the increased productivity of

[1] By Glenn E. Plumb. 16p. typewritten. Washington, D.C. January 1, 1920.

human effort but also undue profits exacted from consumers in higher prices and from labor in lower real wages.

Under the existing system the owners of capital have had placed in their hands a monopoly of the management of all industry with power to fix wages paid to labor, prices paid by the consumer, and profits received by the owners of capital, and have also the power to determine the nature, quantity, and quality of goods produced without regard to any consideration of the right of the public to require that essential products shall first be produced and non-essentials from the surplus of productive power remaining, after supplying the need for essentials.

The wages so fixed by such management bear no relation to the value to society of the services of labor, which creates the products upon which profits are exacted.

The prices so fixed bear no relation to the need of society for such products and the profits so exacted bear no relation to the value of the services actually rendered by the owners of capital.

In every industry there are three interests essential to its existence; first, the need of society for the products of that industry; second, the rights of those who furnish the capital to supply tools, material, and equipment from the use of which society's need may be met; and third, labor, that human impulse which creates out of the tools, materials, and equipment furnished by capital the commodities or services that society requires.

As each industry is dependent upon the existence and cooperation of these three distinct interests, so every industry is dependent upon all other industries for the production of the tools, equipment, and materials necessary for that industry and as the source of the means by which the public may purchase the commodities of that particular industry. All industries are dependent upon transportation as affording the avenue of exchange and distribution of raw materials, semi-fabricated materials, and finished products.

This complete interdependence of one industry upon all others is the result of the development of cooperative specialized production. The welfare of each industry is essential to the prosperity of all others. The well-being of those employed in each industry reacts beneficially upon the well-being of all those employed in other industries. Conversely, profits wrongfully exacted from those employed in one industry prejudicially affect all of those employed in other industries in direct proportion as the purchasing power of the first body of employees is reduced, and thereby their ability to consume the products of their own and other industries is diminished.

Since these three interests, the need of society, the rights of those who own capital, and the productive capacity of those engaged in industry, are equal in importance to the existence of the industry, it necessarily follows that they must have an equal authority in the direction of the industry; for if one interest exceeds the other two in authority, that one uses its excess power for its benefit at the expense of the other two: if two exceed one, they will exert their excess power to the point of crushing the weaker interest, and with its extinction the industry falls, and can only be revived when the third interest can again be induced to participate in the restoration of the industry.

The recent coal strike is a speaking illustration of this principle. Society demanded coal to prevent its suffering. Capital owned ample tools, equipment, and materials with which to meet that demand. But labor refused to cooperate with the other two interests and ceased to function as the creative power. The reason for its cessation was that under the authority exercised by those owning tools, equipment, and materials, labor believed it was deprived of its share in the industry for the benefit of capital. The public was deprived of its necessities, also for the benefit of capital, no matter what price the public was willing to pay. The public then joined its authority with that of capital to compel

labor to serve. That attempt was a failure. The industry died and became a corpse, to be revived only when labor again consented to resume its function, and after its demands had been met to such an extent as to procure its further cooperation.

Under the existing systems there is no point of common interest between society's need, and the profit-seeking of capital, and the interest of labor. The three fundamental interests are held apart by wholly diverse attitudes toward the industry. The public seeks to buy as cheaply as it can without regard to profits or wages. Capital seeks to obtain the highest profit it can without regard to the need of society or the rights of labor; and the laborer, being treated as the merchandiser of a commodity, naturally seeks to sell as little of that commodity as he can for as much as he can get, without due regard for the interest of capital or the need of society.

This complete diversity of interest and the total lack of a common interest is responsible for the existing condition of industrial warfare. It creates classes in society separated by irreconcilable distinctions and interests. Though individuals may pass from one class to another, their passing marks the end of the possible affiliation with the class they have left, and compels the adoption of the interests of the class which they enter.

Industry Analyzed

We have four divisions of industry today, each distinct in the characteristics which differentiate these divisions from each other, and yet having actually common interests throughout.

For the purpose of this analysis, we divide industry into the following classes:

First, those industries which are individualistic in ownership and organization. In such industries the individual owner combines in himself all of the interests on which industry is based; that is, he is capitalist,

laborer, and consumer. The agricultural industry, as now conducted, is the best example of this class. The small artisan, contractor, and manufacturer, also come within this classification.

The second division includes all industries formerly individualistic, but which through organization have so developed that ownership is separated from labor and concerns itself only in direction and supervision of production, in which it engages the efforts of others who have no share in ownership.

The third division embraces those industries which are based upon a grant from society in the shape of a franchise, grant of privilege or monopoly. These industries include all public service corporations, except interstate commercial transportation, and all industries engaged in exploiting natural resources. In all such public service industries the owner voluntarily devotes his property to the public use under the terms of the franchise granted to him, and submits the conduct of the business to such public regulation as the terms of his grant require. He may, however, withdraw his property from the public service and surrender his franchise at his option unless precluded by the terms of the grant, but may completely withdraw his property from such service at the expiration of the term of his grant. Grants of privilege to industries engaged in exploiting natural resources, as construed in the water rights cases in Colorado, are based upon the obligation of the grantee to use the natural resources in the manner which best serves social requirements. Such industries include mines, oil and gas, waterpower—all industries distributing to society the stored-up, natural wealth of the community.

The fourth division includes only railroads and commercial transportation facilities. This division is separated from the preceding public service industries by the following marked distinctions: The preceding public service industries are under local control, created by

local authorities, and subject to local regulation. Railroads are national public highways, and while created by state legislative enactments, conduct their interstate transactions only by consent of the Federal government. The Federal government alone has exclusive authority to control the agencies of interstate commerce, including transmission of intelligence, to construct and operate post and military roads, and to control shipping on navigable streams throughout the United States. In the case of the railroads the property constituting a railroad is irrevocably dedicated to the public for highway purposes, to be used in the manner permitted by law, and may not be withdrawn from the public use except by legislative consent emanating from the same source that grants or controls the exercise of privilege.

Analysis of the Fundamental Interest in these Industries

In all of these industries it is the need of society for the products of that industry or the service which it renders that calls the industry into being. In the first two classes where society has made no grant, the free working of the law of supply and demand protects the public interest. The individual who invests in such industry knows that his profits depend upon supplying better goods, more goods, and cheaper goods than his nearest competitor within range of his immediate market. If he fails to meet this demand, his competitor controls the market and his investment ceases to be productive. He profits only as he meets the demand of society for more, better, and cheaper products.

Public Interest Defined

The public interest may be expressed as follows: It is the right of the public to obtain better, cheaper, and more products or service *as the progress of the arts permits the making of more and better goods or service at a*

lower cost of production. In the two last-named classes of industry, that is, public service corporations, natural resources and railroads, this need of society has been crystallized into a grant. This grant in the hands of its possessors is valuable property. It is deemed to have earning power, a capacity for producing profits. That capacity for profit is measured exactly by the amount of charge which the public must pay for the service rendered in excess of what is required to pay the legitimate demands of labor and capital. To protect the public against extortion, it has retained the right to regulate these charges. The constitution denies the power of the public so to exercise its power of regulation as to deprive the owner of the property of his investment actually, honestly, and prudently made, or of a fair return upon such investment. If society pays more than this amount which the owner retains as profit, society pays more than it is lawfully required to pay, and the owner receives more than he is lawfully entitled to receive.

This introduces perpetual conflict between society in the exercise of this public regulation and the agent it has created for its service. Whatever society may pay in excess of the just demands of capital and labor is an exaction which deprives society of the power to consume a corresponding amount in value of other products and necessities, and confers upon the owners of these agencies that power of consumption which they themselves cannot expend in meeting their own demand for necessities, but which finds its distribution only through supplying luxuries and procuring greater revenues for those who benefit by these exactions.

Interest of Owners of Capital

The owner of capital never invests in an industry of the first two classes unless in his judgment he can make a profitable investment. The public never guarantees the mistakes of private judgment. There can be no

compulsion of investment in these classes. In the last two classes based on grants of society requiring service, capital is essential. Therefore, such terms must be offered as will induce the making of the investment. To induce such investment the public must guarantee, first, its integrity, second, that rate of return which satisfies the investor in rendering the service required of him. These terms are always expressed in the contract. They are matters of contract pure and simple. That contract is defined by the terms of the charter which states the extent of the grant, the obligations assumed by the grantee, and the benefits to be received by the grantor.

As expressed by the Supreme Court of Illinois in the case of the Union Traction Company versus the City of Chicago, "no public service corporation is entitled to demand of the public more than enough to pay a fair return upon its actual investment," unless there be a provision in the charter or contract authorizing such excess earnings. In this discussion investment must be clearly distinguished from service. If the owner of capital invests his money and then also invests his services, he is entitled to receive reward for the service just the same as though he were not the owner of capital. He is entitled to receive return on his capital just as though he rendered no service. He cannot by combining in himself the two functions increase his right to personal return in either capacity. If he does receive more than just compensation for services and a fair rate of interest on his capital, he then enjoys a special or exclusive privilege distinct from the rest of the community in violation of that fundamental provision of our government which was best expressed by President Adams, in his draft of the Massachusetts Constitution, adopted in 1780, as follows:

> Article 6. No man, corporation, or association of men have any other title to obtain advantages or particular or exclusive privileges distinct from those of the community than what arises from the measure of services rendered to the public.

Also:

Article 7. Government is instituted for the common good, for the protection, safety, prosperity, and happiness of the people, and not for the profit, honor, or private interest of any one man, family, or class of men.

Such a privilege also violates that other fundamental principle of American government expressed in the Constitution of Missouri (Article II, Section 4) which states that "the principal office of government is to give security to life, liberty, and enjoyment by the people of the gains of their own industry."

Rights of Labor

Labor is the expression of the human power to create. Applied to the use of tools, equipment, and materials, it is the agency that supports all production. Like capital, the labor of an individual is his own exclusive property. He may render or withhold his services as he sees fit. He may demand such terms as he will, and, if those terms are not complied with, he may refuse to serve. But the necessity to provide for hunger, cold, shelter, and clothing compels the rendering of service. To withhold service in spite of such necessities means the surrender of life, the extinction of the individual. Sometimes the effort required to meet these necessities becomes so great that existence becomes unbearable, life a horror, and extinction a thing to be desired.

Every man has the right to live provided he renders service. In return for that service he is entitled to receive the service of others in the shape of commodities comprising life's necessities which others produce. *The measure of what he shall receive depends entirely upon the amount in value of service which he renders. He is entitled to receive an equivalent amount in value of the services of others.*

The wage system disregards this human right. Under the wage system he receives only enough for his services as will entitle him to procure of the services of

others the bare necessities of existence, this without regard to the value of the service which he renders to the community.

The pressure of the existing system tends so to lower wages as to give to labor so bare and meager an existence as is not worth the effort of prolonging. The present system by raising the price of commodities deprives consumers of the means of purchasing more than the bare necessities of life and gives to the owners of capital all of the constantly increasing values reflected by the difference between the actual cost of production and the price at which commodities are sold—diverting this increased value from the common use of the community to the special use of a highly privileged class.

In such an industrial system there is no democracy, there is no equality of opportunity, no freedom for the human creative genius, no incentive to develop individual powers, no possibility for the individual to keep for himself his share of his own creation. Under such a system government does not find its principal office in securing to the people the enjoyment of the gains of their own industry. This system continued—extinquishes democracy in living. The privileges which it creates can only survive through might. Imperialism reigns supreme. Humanity descends from divinity to brutishness. Civilization dissolves.

The Remedy

To correct this system there must be absolute equality between the three interests—the public, capital, labor. In order to permit equality there must be equal authority.

To accomplish this end, I submit to the American people the true foundation for the reconstruction of our industrial system. This requires that the grant of society, existing either in a privilege, monopoly, or grant, shall be deemed the investment which society makes in that industry benefited by the grant; that the capital required to support the industry shall also be deemed an invest-

ment. Labor, the creative power of individuals employed, shall be deemed an investment.

Society shall receive profits on its investment in the shape of better, cheaper, and more service.

Capital shall receive its share in guaranteed protection of investment, and that current rate of return which in the markets of the world procures the acceptance at par of the securities which represent invested capital.

Labor shall receive as its return upon its investment of human effort that rate of wages which in the free markets of the world procures the service of that class of labor, and, in addition to wages, shall receive its share of all of the savings which labor can effect in the processes of production.

In these industries which should properly be owned by the community, and where capital employed has an absolute guaranty of integrity and return, all of the savings reflected in the greater productive power of increased efficiency should be evenly divided between the public, who consumes the products or services of that industry, and labor, which creates such products or services. In such industries employing private capital to render public service, based on a grant, the public, or consumers, should still enjoy one-half of the savings of such efficiencies. Capital and labor jointly should receive the benefit of the other half, to be distributed between capital and labor in the proportion of their respective investments; that is, capital should receive that proportion of such savings which the interest on capital bears to the wages paid to labor. The public's half in such savings scientifically computed and certified should be reflected in a reduction of price to the consumers of the service rendered.

In industries of the second-class, that is, those industries engaged in production, but not based on the enjoyment of a public grant, privilege or monopoly, there are two forms of investment; that of capital, and that of labor. In such industries both classes of investors should

share in the direction and control of the industry equally, and in the distribution of the profits in the proportion which their respective investments bear to each other.

If this system were universally applied to production, every producer would receive, as a producer, in increased earning power one-half of all efficiencies created in the processes of production of the industry in which he or his capital is employed, and, as a consumer, he would receive in the increased purchasing power of his earnings one-half of all the efficiencies created by all other producers in all other industries.

By this method of distributing the wealth created by industry each individual would be assured of receiving in return for his service an equivalent amount in value of the services of all other producers whose commodities he consumes. By no other method of distribution can a producer be protected in his right to exchange his service to society for an exact equivalent in service rendered by all the other members of society.

Such a system protects every individual in both of his social interests, that is, his interest as a producer, and his interest as a consumer. It extinquishes all class distinctions. It brings into being the promise of the founders of our country that under our government there shall be equal opportunity for all with special privilege for none. It protects to the fullest extent every interest which the owner of capital possesses under the Constitution. It also fulfills the prime purpose of government in that it protects to every citizen the full enjoyment of the gains of his own industry. It requires no amendment of the fundamental law. It merely requires adoption.

The Political Program

I submit, therefore, to the consideration of the American people as the means by which the end herein described may be successfully achieved, the following political program:

First, as to railroads and all means of transportation

of persons, commodities, and intelligence, the adoption of a plan for the public ownership and democracy in the control of the operation of the railroads and all such transportation facilities in accordance with the principles of the Plumb plan, with such modifications of details as may be needed to effectuate the general principles above outlined.

Second, as to all industries based upon grants, privileges, exploitation of natural resources, and enjoyment of monopolies, the adoption of the necessary legislative policy through local enactments either to acquire public ownership of such utilities with the extension of the principles of the Plumb plan to their control and operation, or the adoption of a tripartite representation of the public, private capital employed, and labor, in direction and control of such industries, with equal authority, and a division of the savings of efficiency between the public on the one hand, and labor and capital on the other hand; labor and capital sharing on an equality in proportion to the value of their investments.

Third, as to all industries engaged in production not based on grants of privileges or monopolies, the adoption of legislation either local or national requiring all corporations organized for the conduct of such industries to recognize the right of labor as the investors of present human creative effort, in the control and management of the industry, and to share in the profits of such industries on terms of equality with capital.

Fourth, individualistic industries—farms, and productive enterprises owned and operated by the same individuals—shall by the adoption of the three foregoing paragraphs be freed from all encroachments of privilege under which they are now suffering, and thereby restored to economic and industrial freedom; that the administration of all such industries shall be left entirely to the individuals owning and operating them, relying upon the restored freedom of the law of supply and demand to

protect the interests of the public; the interests of labor and capital in such industries being joined in the same individuals.

The interests of agricultural laborers and tenant farmers will be promoted inevitably by community acceptance of the principles of a fair division of rewards for service which are outlined for industries of large capitalization.

SUMMARY OF THE ANTHRACITE REPORT [1]

The "separate report on anthracite" of the United States Coal Commission to the President and the Congress was submitted on July 9, 1923. That document is a summary of voluminous reports in the hands of investigators which, in turn, were reduced to summaries by numerous departments. The report, therefore, is a summary of summaries. The full data will never be made public. The departmental summaries are, however, being prepared for publication as quickly as possible.

Production

The Roosevelt Commission (1903) assumed that anthracite production would reach its maximum limit at sixty to seventy-five million long or gross tons, whereas the actual output in 1917 and the six months of 1923 indicate that whatever may be the potential market capacity, the present mine and washery capacity is at least ninety million gross tons a year. More significant is the progress made in twenty years in lessening the wide gap between mine capacity and actual output; with approximately the same number of mine workers, the production was 50 per cent greater in 1920 than in 1900. To that extent, the anthracite industry was once overdeveloped and overmanned much as is now the bituminous coal industry."

[1] From Mining Congress Journal. 9 : 265-8. August, 1923.

METHODS OF CONTROL

Eight producing companies, affiliated to some extent with the railroads, produce 74 per cent of the total output and control 90 per cent of the underground reserves. The remaining 26 per cent of the output is contributed by the so-called independent companies, but the largest of these companies retains a community of interest with one of the railroads and nine others control 13 per cent of the output. . . Through these affiliations of railroads and mining companies the same financial interest controlled both the production and the transportation of coal and commonly also its wholesale distribution either through the selling department of the mining company or through a separately incorporated but financially related selling company. . .

The independents have been losing ground in the proportion of the total output produced, through absorption by the larger companies and through gradual exhaustion of their lands. In 1895 the independents produced 45 per cent of the tonnage; in 1900, 38 per cent; in 1905, 25 per cent; in 1921, even after the dissolution of the Temple Iron Company, 24 per cent; and, indeed, if the Susquehanna Collieries Company be included with the railroad group, the proportion contributed by the independents in 1921 would be only 19 per cent. . .

There is no effective competition between "railroad" companies, even though there is a range of 35 cents between the highest and lowest of the circular prices for the same size of coal. . .

Real benefits have flowed to the public from strongly financed companies. . . The anthracite mines have conserved the country's coal resources by steadily increasing the percentage of coal in the ground recovered and sent to market; they have economized in the capital employed by a closer adjustment of mine capacity to production and in man power by largely eliminating the cost of idle days for men as well as for plants, resulting in a

corresponding improvement in the economic condition of the mine workers.

Royalties

About a third of the output of anthracite is mined under leases in which the operator pays the land owner a royalty. The royalties collected on fresh mined coal range from as low as 12 cents on old flat-rate leases to as high as $1.50 per ton on percentage leases and on certain stripping operations the rate is even higher. The royalty rate of the Girard estate leases for 1921 averaged $1.27 per ton on all coal mined—2,983,723 tons. . .

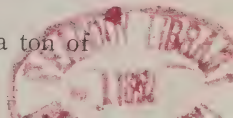
Among the independent operators the great bulk of the output—at least 70 per cent—is produced from leaseholds under royalty. Among the "railroad" companies the great bulk of the output is produced from lands in fee.

Cost of Mining

The commission has obtained reports on costs sales realization and margins covering the period January 1, 1919, to March 31, 1923, from all but one of the important operators. . . The mine cost as it stands on the books of each mining company and as reported by the company represents the average cost of the total output, all sizes of anthracite. Egg coal has, for example, at least five times the market value of barley, but these sizes are mined together and their costs cannot be separated.

In the ten years under review by the commission's accounting staff, labor costs in the production of fresh mined coal have risen from $1.56 a gross ton in 1913 to $4.12 in the first quarter of 1923, the cost of supplies from 35 to 71 cents, and general expenses from 32 to 92 cents. Labor cost bears about the same relation to total mine cost in 1923 (71.1 per cent) as in 1913 (70 per cent); supplies cost relatively less in 1923; and general expenses are relatively higher in 1923. . .

The total range in the average mine cost of a ton of



coal with the nine railroad companies has been from $2.23 in 1913 to $5.75 in 1923. The three independent companies for which there are continuous cost records the corresponding change has been from an average cost of $2.50 in 1913 to $6.32 in 1923. Examined in detail the increase in mine costs for these twelve companies was moderate until 1918, when for three successive years there was an annual jump of approximately a dollar. To these increases, changes in wage rates, rising prices for supplies and increasing charges for royalty and depletion have all contributed. . .

Even within the few counties in which anthracite is found there is a conspicuous range of natural conditions involving economic and even social consequences. . . The contrast is great between some of the level-lying beds of moderate but fairly consistent thickness under the broad Wyoming Valley, where the mining and underground haulage present relatively simple problems to the engineer, and the steeply pitching or overturned and faulted beds of the changing thickness in the Schuylkill field, where crushed coal and treacherous roof multiply the difficulties of mining and increase the unavoidable waste.

Recovery of Coal

The engineering staff of the commission has carefully studied the subject of waste and has determined the proportion of the coal deposit which is lost in the process of mining and preparation. It is gratifying to find that while forty years ago estimates of the percentage of recovery were 27 per cent to 40 per cent and twenty years later the Roosevelt Commission predicted that with better mining methods and the utilization of former waste material a 50 per cent recovery could be expected in the near future, the present study shows that this estimated higher recovery has been in fact exceeded and that the practice of today in mining and preparing the coal for market yields an average recovery of about 61 per cent,

the greatest percentage of waste being in the southern field, where the steeply pitching beds of crushed coal place a natural limitation on recovery. It must be kept in mind, however, that this type of conservation engineering which increases the percentage of recovery and adds to the expected life of the limited reserves of anthracite in the ground may involve an increase in the cost of mining.

Freight Rates

The item of freight rates alone in the examples cited takes from 16 to 30 cents of the consumer's dollar. The question whether or not the existing freight rates on anthracite are excessive is one that comes under the jurisdiction of the Interstate Commerce Commission.

As so large a part of the anthracite consumer's dollar goes as freight charges, a material reduction in the price of coal might come through a reduction of freight rates. With a keen appreciation of the public demand for the scrutiny of every item in the cost of anthracite, the Coal Commission urges upon the Interstate Commerce Commission, the duly constituted agency of the Federal government, a reexamination of the reasonableness of anthracite freight rates. The pending separation of the carriers and the mining companies in the three large systems makes opportune the reconsideration of the subject by the Interstate Commerce Commission."

Wholesale Distribution

Of the anthracite domestic sizes, 24 per cent is sold directly from the mine to retailer or consumer and 53 per cent through sales agents and 20 per cent is handled by wholesalers whose margins vary widely from city to city and from year to year. Reports from representative wholesalers in five cities showed an average margin of 23 cents in November, 1921, and over 27 cents in November, 1922. In these two months the high and low margins for individual companies were, in 1921, 70 cents

and 18 cents, and, in 1922, $1.40 and 6 cents. One feature of this wide spread is the fact that the wholesale trade has to dispose of steam sizes, sometimes at a loss, along with the more profitable domestic sizes. The trend of wholesale gross margins in the last three years has been downward with a decrease of 13 cents from 1920 to 1921 and a recovery of 3½ cents in 1922.

Retail Distribution

The expense of distributing the coal is the item of cost nearest the home, and yet it is an item that the consumer may overlook. The city retailer may have provided extensive storage in his coal yard or pocket and delivery trucks sufficient to meet promptly every call for the immediate delivery in mid-winter; the small dealer may own neither yard nor delivery equipment, simply selling from the car to the customer's own truck or a hired truck. Such a variation in service naturally involves a variation in gross margin or difference between the cost of anthracite on the dealer's siding and his price to the consumer. The field agents of the commission have found that these margins are as high as $3.50 or more per ton and as low as $1 or even less. The larger service rendered to the city consumer includes unloading, storage, screening and delivery. In five of the larger cities, examination of the books of the dealers handling anthracite coal almost exclusively showed that the average gross margin per ton was $2.88 in 1920, $2.55 in 1921, and $2.41 in 1922. The average expenses of these dealers for these three years were $2.39, $2.26, and $1.99, respectively, showing a decrease since 1920 and net margins of 49, 29, and 42 cents, respectively, for the three years. . .

Prices

The well-known increase in anthracite prices in the last ten years or so is frequently attributed to profiteering and frequently to increases in wages, but there have

been insufficient facts available with which to measure the justice of either accusation. How great has been the actual rise in price, how this rise is related to the general price movement, what items are included in the price the consumer pays for his coal, and especially what profits come out of that price, are questions properly asked of this commission.

The average retail price of stove anthracite in 1913 in Boston and Washington was $8.25 and $7.50, respectively, the former, however, being the price of the short or net ton, the latter that of the long or gross ton. In 1923, the corresponding retail prices are $15 for Boston and $15.39 for Washington. Since 1913 freight rates from anthracite mines to these two cities have increased $1.25 and $1.14. Eight of the larger coal companies, most of them still closely affiliated with the railroads, are grouped together in price quotations and their product is known as "company" coal, in contrast with the "independent" coal produced by one hundred or more smaller "individual" companies. In 1913 the average mine price of stove anthracite was $3.53 a gross ton; today the quotations are $8 to $8.35 a gross ton for "company" and $8.50 to $11.50 for "independent" coal.

Thus in ten years both the retail and the wholesale prices of stove coal have practically doubled. This in line with the general advance in commodity prices.

Having thus stated the facts—although not in the order here set down—the commission proceeds to draw its various conclusions and to make its recommendations, as follows:

Conclusions

Both the Congress and the American people are concerned in the questions whether in the anthracite industry a reasonable return on investment can be paid to the owners and operators, decent living conditions and an adequate wage based on American standards furnished to the mine workers, a proper return made to the railroads

and the dealers, and coal be delivered to the patrons of the industry at lower prices than those now charged. Furthermore, they want to know what can be done to assure an ample supply of anthracite with a constant flow from mine to consumer. Peace with justice in the industry is the first requisite and economy is the second. To these inquiries the coal commission has directed its attention.

Ownership or Regulation

The fundamental fact in the anthracite coal problem is that heretofore these limited and exhaustible natural deposits have been in the absolute private possession of their legal owners, to be developed or withheld at will, to be leased for such royalties as could be exacted, to be transported and distributed at such rates and in such manner as a double-headed railroad and coal combination might find most advantageous from the point of view of private profit, to be sold at such prices as could be maintained by the restriction of output and the elimination of independent competitors, through such means as the maintenance of freight rates burdensome except to those who, owning both mines and railroads, could afford to be indifferent as to whether their revenue came from the one source or the other.

The commission does not recommend the abolition of existing property rights, however much might be said for the view that mineral deposits should have been held from the beginning as national rather than individual property. The commission does not recommend government ownership either by purchase at present value or by expropriation. It does, however, hold the view that a limited natural monopoly like anthracite, held by a relatively small number of individuals, estates, and companies, and supplying a necessity of life for millions of our people, cannot continue to be treated as if it were not affected by a public interest.

Coal is quite as much a public necessity as gas, street railway service, or any other service or commodity that has been brought under public regulation. There should be no secrets from the public in regard to mining costs, profits, salaries, wages, or corporate relations. Banks and insurance companies are privately managed because we find by experience that they can be managed more efficiently and economically on the principle of individual responsibility. But, like railroads, they are required to report to a public authority and they are subject to such regulation in the public interest as experience may show to be necessary and public opinion may from time to time approve. The guiding principle in such enterprises is no longer maximum profit to owners but maximum service to the public.

The time has certainly come to establish the same controlling idea in the anthracite coal industry. There is not as yet a sufficient basis in knowledge or experience to determine what form of control or regulation will ultimately be most advantageous. What is clear is that in the operation of coal mines, as in the operation of railroads, telephones, water companies, or banks, the public interest must be respected and served, and that this requirement places limitations on the rights of owners of coal lands, operators, mine workers, carriers, and dealers. The commission believes that the principle of individual and corporate responsibility should be maintained as most likely to insure economical and efficient management of the industry, and that the public interest may be adequately safeguarded by the creation of a governmental authority with power to require financial and operating reports, to prescribe uniform methods of cost accounting, and to determine the conditions on which coal may be shipped in interstate commerce.

The President of the United States should be authorized by act of Congress to declare that a national emergency exists whenever through failure of operators and

miners in the anthracite industry to agree upon the terms of employment or for any other reason there is a suspension of mining operations, seriously interrupting the normal supply of anthracite fuel in interstate commerce; and to take over the operation of the mines and the transportation and distribution and marketing of the product, with full power to determine the wages to be paid to mine workers, the prices at which the coal shall be sold, and, subject to court review, the compensation to be paid to land and mine owners.

On these subjects more definite recommendations will be reserved for the final report of the commission, since they apply to both branches of the industry.

Recommendations

1. The commission recommends that in the next agreement there should be a provision for a continuing umpire and that he or an assistant named by him should sit with the conciliation board at all its meetings, but without a vote.

2. In view of the delays that have been caused by the absence of members of the conciliation board, alternates of like standing in the industry should be selected with authority to act in the absence of the original member.

3. The operators' group should appoint a full-time representative and all necessary assistants to consider jointly at the mine with the district officers of the union each case before it is appealed to the conciliation board in the hope of securing a local agreement, arriving at a better understanding by each side of the difficulties and problems of the other, and thus producing a mutual feeling of respect for the other's opinions and each obtaining the outlook of the other upon the problems.

4. So many changes have taken place since 1903 that the agreement should provide for a joint committee to work out a restatement of the whole agreement in the

terms of today, and this agreement should be specific enough to be the code by which all persons having anything to do with the settlement of grievances shall be bound.

5. If the board of conciliation does not clearly understand the facts involved in any case, it should appoint an examiner from each side immediately to investigate and furnish it with all the facts.

6. The agreement should provide for penalties for the breach thereof by either party, and the method by which such penalties are to enforced.

7. The renewed agreements have too rigidly retained the practices and conditions of 1902 and have not had adequate flexibility. An industry which is necessarily constantly changing cannot tie itself inflexibly to conditions of twenty years ago without hampering the management and working injustice to miners. A second joint committee should be provided for in the next agreement and directed to make an engineering study of the elements of the job of mining anthracite coal, for the purpose of building up a scientific and more equitable basis for rate making. Until, however, such committee shall disclose fundamental facts which shall form a decidedly better basis, the old 1903 base should, of course, be retained, for however inequitable the basis of 1903 with its subsequent modification, it is better than no basis at all.

8. The expiration of the contract in the anthracite region should not coincide with the expiration of that in the bituminous region. The contract should run for a definite period of time with the proviso that it shall be deemed to be renewed for a like period of time except as to such provisions thereof in which notice of a desired change shall have been given by either party to the other at least ninety days before the renewal date. Upon these proposed changes the parties shall immediately confer and if, sixty days before the date fixed for the renewal

of the contract, they have been unable to agree, they shall report such fact to the President of the United States, specifying clearly the controverted points. The President shall thereupon appoint a person or persons to inquire into and make public a report upon all the relevant facts in controversy before the date of such renewal shall have arrived.

The commission recommends at this time no punitive legislation. It awaits with interest whether the next agreement entered into shall show a cooperative spirit, a clear idea of partnership on the part of all concerned in it, and a proper conception of the rights of the American people. These rights in the anthracite region are no different from those in the bituminous, and the judgment of the commission will be very largely affected by what takes place in the present negotiations. It calls attention to the fact, however, that some of the material from both the operators and the United Mine Workers, presented to it is calculated even if not intended to inflame the public mind for or against one of the parties. This is more applicable to the bituminous controversy. These charges and counter-charges are most unfortunate at this period of negotiations. Instead of preparing the public mind as to what will be real justice to the operator and the miner and what will stabilize the industry, there has been too much of epithet, too little of argument. The commission recommends that each side forget past differences and grievances and attack the problem in the spirit of justice and fair dealing, not only between themselves, but with due regard for the rights and sensibilities of the American people. The commission hopes that a constructive view will be taken, not controversial in its character, so as to assure a continuous output from the anthracite mines and the scrupulous keeping of the agreement. If it must fix responsibility because the old order has not changed, it cannot do so without taking into consideration the bituminous industry.

COAL DISGRACE—AND THE WAY OUT [1]

Living on the edge of the greatest coal fields in the world, millions of people in the manufacturing east have been suffering from the most disastrous coal shortage in our history. Throughout the upper Mississippi valley people have been freezing for want of coal, the railroads have been paralyzed, crops have been left to rot in the ground or piled at the freight sidings. Disease and death have risen to epidemic proportions.

On Washington's Birthday the New York city authorities decreed the closing of the schools for the remainder of the week because two thousand teachers were down with influenza and grippe. In Saratoga Springs the Commissioner of Public Safety, invoking the health laws of the state, overpowered the train crew and the railroad detectives and seized nine car loads of coal in a desperate effort to check the spread of grippe and pneumonia. General Goethals, State Fuel Administrator, denounced this "unauthorized" performance and said he would like to see its perpetrators in jail. Whereupon the state Senate passed resolutions inferentially rebuking the general for not having seized the coal himself, and a number of up-state communities served notice that unless they got prompt relief they would take the law into their own hands. Cries have been going up to Washington to place an embargo on all shipments of coal to Canada, and warnings have come across the border that Canada might retaliate by shutting off electric current from her side of Niagara. The chairman of the Pennsylvania Fuel Commission denounces "irresponsible firms" for unloading "fire-proof" coal on the market, and in all the cities steps have had to be taken to stop the shortweighting of hundred-pound bags for which the city poor normally pay at the rate of $18 to $20 a ton. We are witnessing the triumph of private initiative in the handling of

[1] By Robert Bruère. Nation. 116 : 261-2. March 7, 1923.

a commodity as essential to the life of the community as water itself!

Amid this scandalous clamor of fuel administrators, railroad executives, state and municipal health officers, big and little coal dealers, fuel remains scarce, prices soar, and the victimized public continues to freeze, sicken, and die.

Victimized by whom?

The present coal shortage is not a new phenomenon. It has recurred not only with every hard winter and every prolonged cold snap, but also with every peak in industrial prosperity. It recurred with most menacing effect in the winter following our entrance into the war. Then the Federal government saved the situation by taking over the railroads, setting up the Fuel Administration, and by a drastic system of priorities and price control averting disaster. But the Fuel Administration was not popular. It interfered too much with business-as-usual. Only the special appeal of war-time patriotism made it a go. Immediately after the armistice, the public yielded to the tremendous propaganda against government control of the coal supply. A loose-jointed imitation of the Fuel Administration, improvised by Washington and the states this winter, has been a failure. The railroads protest that they have been breaking their own best previous records for hauling coal; they blame the miners' strike for the shortage. The miners protest that the operators violated their agreement last spring and forced a strike with a view to creating just such a shortage as now exists and reaping a golden harvest at their expense and the public's. Local distributors protest that they have performed wonders in getting coal from the railroad yards to the consumers. On the face of the superficial record the operators, the railroads, the miners, and the local distributors, instead of being anathematized by the public, should presently be coming in for hero medals.

And—on the face of the superficial record—they all

have a case. They have a case because the coal operators and the coal railroads have succeeded in keeping the public under the delusion that there is no practical escape from the present wasteful, costly, and antiquated system of hauling raw coal over slow and costly though profitable railroads to slow and costly distributing agencies for costly and inefficient consumption in ancient stoves and inconvenient furnaces in the individual factory or home. As a matter of fact there is no better reason why the individual home or factory should maintain its individual heating or power plant than there is for the maintenance of individual water systems. The present coal and fuel scandal will recur year after year in more or less acute form so long as the public submits to being mulcted in convenience, money, health, and life for the sake of maintaining a railroad and local distributing system that ought long ago to have been revolutionized from top to bottom.

Is revolution too strong a word? As used in this connection it is taken directly from a recent address of President Warren G. Harding. Referring to the superpower survey published by the government in 1921 (Professional Paper 123), he said in opening the last session of Congress: "I am convinced that constructive measures calculated to promote such an industrial development—I am tempted to say, such an industrial revolution —would be well worthy the careful attention and fostering care of the national government." This superpower survey and its recommendations have received curiously little publicity. The survey is a bulky document, packed full of technical data the immediate practical meaning of which it is hard for the layman to get at. It should be brought up to date, summarized in brief and intelligible form, and given the widest possible distribution. It might well be made the subject of special consideration by the United States Coal Commission. For while its authors show a peculiarly tender concern for the vested utility interests, they nevertheless demonstrate that a

superpower system is not only feasible, but also that it offers the only possible escape from the recurrent fuel scandal.

Throughout the east, and to a great extent in the middle west as well, coal to the domestic consumer means hard or anthracite coal. To him the distinction between anthracite and soft or bituminous coal is rather vague, except that he knows that soft coal is dirty, disagreeable to handle, that it smudges his town, and destroys his household goods. He does not realize that a ton of soft coal contains on the average, in addition to some five to ten thousand cubic feet of gas, two gallons of benzol, and eight gallons of tar, between twelve and fifteen hundred pounds of coke or smokeless coal. He does not realize that coal can be converted into electricity at the mines at two mills a kilowatt hour, and that with the proper utilization of the by-products of bituminous coal, steam electricity can on the average be produced more cheaply in the greater part of the eastern section of the country than water-power or hydro-electricity. Especially he does not realize—for sedulous pains have been taken to keep him from realizing—that with a thoroughgoing development of such a superpower system as the superpower survey projects, he could get all the current he needs for lighting, cooking, the operation of his factory and household machinery, and in due course for household heating, directly by wire or gas pipe instead of in the crude form of raw coal and at a less price. Professional technicians still keep insisting that house heating by electricity can't be done economically. The Smithsonian Institution has recently printed a sumptuous booklet which says that it can't be done. Textbooks have been put into some public-school systems that warn children against expecting the impossible. But factories are beginning to raise steam by electricity; iron and other ores are being smelted by electricity; domestic hot-water heaters are already on the market. Given cheap current

and house heating by electricity is bound to follow electric lighting.

But waiving this still-debated question, consider what the transformation of coal into electricity at the mine and the coordination of coal electricity with waterpower electricity would mean to the railroads, the factories, and the homes. Today from 40 to 60 per cent of the price which the consumer pays for the better grades of coal represents transportation costs, and the furnaces and stoves in common use waste nine-tenths of the consumer's fuel when he gets it. Electrification would take most of the coal which the railroads now haul out of their freight trains, to say nothing of the coal which the steam engines drag about in their tenders—some 30 per cent of our total annual production. Electric locomotives improve with cold weather, and neither cold nor snowstorms block the movement of current through the wires. Under an electric superpower system anthracite would become an industrial instead of a domestic fuel, because it is most efficient as a steam raiser. And assuming for the moment that even a superpower system based upon the conversion of anthracite into electricity at the mines, the by-product utilization of our rich deposits of bituminous coal, and the integration of coal electricity with waterpower electricity would not make electricity economically available for domestic heating—an excessively conservative assumption—coke would take the place of anthracite for domestic use and at worst the fuel tonnage that would have to be hauled would be greatly reduced. Fuel shortages and coal scandals would be a thing of the past.

Such a development is implicit in the survey which President Harding urged upon the fostering consideration of the national government. It is not utopian or a thing that still lies in the future. The mines themselves, especially the anthracite mines, are already extensively electrified. Under compulsion of public opinion, out-

raged by the devastating smoke nuisance, many of the major railroads have electrified the passenger terminals in the denser traffic centers, to their own profit and the great convenience of the public. Where there is freight enough to keep it busy the electric locomotive has demonstrated its decisive superiority over the steam engine. In Ontario more than two hundred cities, towns, and villages have combined in the development of a hydro-electric system on a magnificent scale and are getting their current at cost. With our vast and readily accessible coal fields coal electricity can be produced as cheaply under a proper by-product system as waterpower electricity. It is hardly ten years ago that by-product coke was considered unavailable as a substitute for bee-hive oven coke for metallurgical purposes; the experts were almost one voice in condemning it. Now 60 per cent of our metallurgical coke comes from by-product ovens. In view of all this practical evidence, Secretary Hoover, in an address before the Federated Engineering Societies, urged the engineers to shake off their professional conservatism and tackle the job in a big way. He is quoted as saying that the superpower system projected in the survey to which President Harding referred was the starting-point "for a prodigious development in consolidating the electric power of the country along national lines, which would affect every village and hamlet, combine into superpower stations thousands of minor electrical plants with millions of horsepower and tremendous savings." The thing is feasible. It is necessary. It offers the only escape from the recurrent coal scandal. In a small, privately controlled way it is being done.

Since it is not only necessary but feasible also, why have we not done with our coal what Ontario has done with her water power, why are our railroads not electrified, why must we rely to our grief upon costly and inefficient raw coal?

Ten years ago, Louis D. Brandeis, now Associate Justice of the United States Supreme Court, wrote a

book which he named "Other People's Money." The book is a trenchant analysis of the manner in which the large investment bankers, through trusts and combinations and the establishment of what he calls "our financial oligarchy," have wrecked the railroads and throttled the development of kindred public utilities. Justice Brandeis goes into the facts showing how the investment bankers have trustified the anthracite coal fields and the anthracite railroads to their own great profit and the injury of the public. One of the major conclusions which his analysis establishes answers our question. "The great banking houses," he says, "have not only failed to initiate industrial development; they have definitely arrested development because to them the creation of the trusts is largely due." He shows how this conclusion applies to the history of the steamboat, the harvesting machine, the railroad, the telegraph, the telephone, the automobile, and the electrical industry. If he were writing today, he would no doubt show its application to the maintenance of a profitable though antiquated fuel and power system in the face of the public's desperate need of a superpower system.

Justice Brandeis argues for the curbing of the trusts in order that the initiative of the inventor and the man of small means may be freed. Everyone must agree that this is supremely desirable in the case of new inventions and all those industrial enterprises that are within the competence of the man of relatively small means. But who but the investment bankers or the public commands sufficient financial resources to utilize already existing inventions in the building of the vast superpower system for which President Harding and Secretary Hoover plead? In the case of the superpower system, as in the case of the super water supply, the choice is not, and in the nature of things cannot be, between private monopoly and small-scale private initiative; the choice inevitably lies between private monopoly and public development.

That is the choice which now confronts the public.

Until the public makes its decision and demands action, fuel scandals and coal shortages will recur. Winter after winter, the price of inaction will be inconvenience, sickness, and death.

REPORTS OF BRITISH COAL INDUSTRY COMMISSION[1]

Ownership of the Mines

On the question of ownership of the mines divergencies of opinion appear. The chairman's report recommends the immediate acceptance of the principle of state ownership of the coal mines; the continuance of the present system of coal control for three years, during which a system of local administration shall be worked out; and legislation for acquiring the mines for the state after such a scheme shall have been worked for three years, paying fair and just compensation to the present owners. To this the miners' representatives agree, adding the proviso that all coke and by-product plants attached to collieries shall be treated as part of the coal mines and acquired by the state. Duckham is not in favor of national ownership, holding that it involves state management, that this would be "an unprecedented and colossal experiment," and that a mistake "would result in a national calamity," while the other five representatives of employers declare:

> We have carefully weighed the whole evidence and have come to the conclusion that the nationalization of the coal industry in any form would be detrimental to the development of the industry and to the economic life of the country.

The miners' representatives give no independent arguments for their view, merely indorsing those of the chairman's report, while the Duckham report stresses principally the fact that the whole question is as yet theoretic and that it is unwise to experiment in such

[1] From Monthly Labor Review. '9 : 380-8. August, 1919.

a serious matter. The argument, therefore, lies between Mr. Justice Sankey and the five representatives of the mine owners. It is conceded by all that state ownership implies some form of state management. Sankey's argument is, first, that the present system of individual ownership and management is wasteful and inefficient. In the export trade, competition between coal owners to obtain orders is so keen that frequently the industry does not get the full value for the article, while in the retail trade the system of distribution through the hands of many private individuals prevents the consumer getting the article as cheaply as he should. "In other words, there is underselling in the export trade and overlapping in the inland trade."

Again, the lack of capital in some cases and the lack of proper management in others prevent the attainment of the best results. The coal mines are owned by about fifteen hundred companies or individuals, and there is much unnecessary expense in the duplication of equipment, lack of standardized appliances, etc. "Unification under state ownership makes it possible to apply the principles of standardization of materials and appliances and thereby to effect economies to an extent which is impossible under a system where there are so many individual owners."

These defects of private ownership, Sankey admits, might be overcome by a system of unification falling short of state ownership, but such a system would fail to meet a fundamental difficulty found in the respective attitudes of the coal owners and the coal miners.

> The relationship between the masters and workers in most of the coal fields in the United Kingdom is, unfortunately, of such a character that it seems impossible to better it under the present system of ownership. Many of the workers think they are working for the capitalist and a strike becomes a contest between labor and capital This is much less likely to apply with the state as owner, and there is fair reason to expect that the relationship between labor and the community will be an improvement upon the relationship between labor and capital in the coal fields.

Beyond this antagonism there is a final difficulty in the way of private ownership which Sankey considers insuperable. The workers have developed desires which will not be satisfied with higher wages and shorter hours, no matter how liberal the concessions in these respects. They are manifesting in an ever increasing degree the ambition and the deep desire to take a share in the management, to become in some degree the heads, as well as the hands, of the industry. This desire cannot be satisfied under private management; the private owners are definitely unwilling to yield any part of their complete authority. This was made very plain at the hearings.

The attitude of the colliery owners is well expressed by Lord Gainford, who speaking on their behalf as a witness before the commission, states: "I am authorized to say on behalf of the Mining Association that if owners are not to be left complete executive control they will decline to accept the responsibility of carrying on the industry, and, though they regard nationalization as disastrous to the country, they feel they would in such event be driven to the only alternative—nationalization on fair terms"

Faced, therefore, by these two irreconcilable attitudes, the determination of the miners to have a share in the control of the industry and the determination of the mine owners to keep that control in their own hands, the chairman, backed by the labor members of the commission, considers state ownership and management the only way out. It is admitted that this is an experiment, and that there is a chance that state ownership may stifle incentive, but against that is the fact that the present system involves destructive unrest and industrial strife.

I think that the danger to be apprehended from the certainty of the continuance of this strife in the coal-mining industry outweighs the danger arising from the problematical fear of the risk of the loss of incentive.

The main argument of the mine owners against nationalization is that state management must necessarily be timid and bureaucratic. The passing on of responsibility from one man to another is, in their opinion, an

inseparable feature of governmental management; and such an attitude is fatal to success in industrial undertakings.

It is of the essence of success in industry that those who conduct it should not hesitate to take responsibility and incur commercial risks. When this is done in the coal industry, what is placed at risk is the capital—or profits of capital—made available for the very purpose of being used in a risky undertaking. On the other hand, the only justification for a government official taking risks is a grave national emergency. . . Should the state indulge in industry, particularly in the mining industry, which is so vitally connected with the destiny of the nation, the result would be nothing short of disaster.

Furthermore, the mine owners feel that should the policy of nationalization prevail there is grave danger that the management of the industry might be swayed by political considerations to an extent that would be gravely detrimental to the nation. They feel that no evidence has been submitted justifying the conclusion that the benefits claimed by its advocates would result from state ownership of the mines, and that there is no ground for belief that nationalization would have the effect of reducing the price of coal. Without cooperation between workers and management, nationalization could not secure an increase of production, but the evidence has shown that strikes are not prevented by state ownership and management. They believe that the opposition between employers and employed in the coal fields has been greatly exaggerated and that all reasonable desires of the workpeople can be satisfied without any change of ownership.

It is regrettable that during the whole of the proceedings emphasis has been laid on a state of antagonism which is alleged to exist between the employers and the workpeople in the coal industry. To such an extent is this feeling alleged to exist that it is stated that the only means of overcoming it is to nationalize the industry and to substitute the state for private enterprise.

From the evidence submitted, which is confirmed by our own knowledge, no foundation exists for such an assertion. In certain cases owing to the action of individuals, few in number but active in agitation, local unrest has been created, but we are

convinced that the relations between the employers and the vast majority of the workpeople in the coal-mining industry do not call for the drastic proposals that have been advanced.

The personal and human element which exists under present conditions would be almost entirely eliminated should the state take over the industry.

From the evidence submitted it is clear that the mine owners are prepared to increase the facilities for enabling the workpeople to acquire a greater knowledge of and interest in the industry.

Finally, they feel that the support given to the claim for nationalization "comes mainly from socialists and theorists who seem profoundly convinced that it is their prerogative to lead the nation in the direction of thought considered by them to be good for the nation," but that the theorists themselves were often not of one mind on the subject.

Acquisition of Mines

If the state is to own the mines it must of necessity acquire them, and as to method of doing this Mr. Justice Sankey and the six miners' representatives are in substantial agreement. It is advised that the state should purchase at a fair value all the collieries, and all buildings, plants, machinery, stores, and other effects in and about the collieries. Any expenditure for development, including housing, if incurred with the consent of the Controller of Coal Mines after a fixed date, should be repaid with interest. The state should also assume the power to purchase any real or movable property directly associated with the working of the colliery not covered by the above provisions. It is proposed that most of the present officials engaged in the coal-mining industry, including the managing directors of companies, should be offered an opportunity of remaining at their present salaries on a five years' agreement, with the provision that they shall receive any increases awarded from time to time. Further, any just claims of pioneer boring companies should be recognized, and the state should assume the power to carry out exploratory borings.

Plan of Administration Under State Ownership

The six miners' representatives, again, are in substantial agreement with the chairman in regard to a suggested scheme of administration for the mines while their ownership is being acquired. It is pointed out that the time at the commission's disposal has been too short to allow of formulating a complete scheme, and that this plan is put forward only as a suggestion of the lines along which the management might be developed. As outlined, the plan provides for a series of mining councils, local, district, and national, in each of which the miners themselves are to be represented, and which are to function under a minister of mines, who is to sit in, and be responsible to Parliament, and who is to be assisted by a standing committee of eighteen members, elected from the national mining council. Each mine is to have its local council of ten members, consisting of the manager, the under-manager, and the commercial manager as ex-officio members, four members elected by the mine workers, and three members appointed by the district mining council. This council shall advise on matters of health and safety, and shall report fortnightly to the minister of mines and to the district mining council any fall in output, and the causes thereof. Should the mine manager refuse to be guided by the advice of this council the matter is to be referred to the district council. One important provision reads as follows:

> The contracts of employment of workmen shall embody an undertaking to be framed by the district mining council to the effect that no workman will, in consequence of any dispute, join in giving any notice to determine his contract, nor will he combine to cease work, unless and until the question in dispute has been before the local mining council and the district mining council and those councils have failed to settle the dispute.

The plan for the district mining council is perhaps the most important part of the whole scheme. Its purpose is to prevent the development of bureaucratic control by causing the industry "to be controlled locally by a council of fourteen, upon which there is equal repre-

sentation for the miners, for the consumers, and for persons acquainted with the commercial and technical side of the industry." It is suggested that the coal fields be divided in fourteen districts, for each of which there shall be a district council consisting of a chairman and vice-chairman, appointed by the minister of mines, four members elected by ballot by the workers, and eight members appointed by the national mining council, of whom four shall represent consumers and four the commercial and technical sides of the industry. This council is to have wide powers:

> Subject to the direction of the minister of mines the district mining council shall manage in its district the entire coal extraction, the regulation of output, the discontinuance of or the opening of mines, trial sinkings, the control of prices, and the basis of wage assessment and the distribution of coal.

The miners' contracts of employment are to contain an agreement not to strike in consequence of any dispute affecting a district unless and until the question in dispute has been before both the district and the national mining councils, and both have failed to settle the dispute.

The national mining council is to be in the main an advisory body designed to work with the minister of mines. A standing committee of eighteen members, elected from and by the national mining council, and representing in equal numbers the workers, the consumers, and the commercial and technical side of the industry, shall meet regularly for the purpose of superintending the operations of the district mining councils. No national alteration of wages shall be made without the consent both of the minister of mines and the standing committee.

In regard to this scheme of management, the miners' representatives differ from the chairman in two respects: They feel that there should be a fuller representation of the miners on the district and national councils, and they object to the restriction upon striking.

> Whilst fully recognizing the necessity of working rules, and the importance of preventing unnecessary stoppages, we feel that

the provisions of paragraphs L, LXIV, and LXXII may be used to impose upon the workers by law a particular form of contract, without their consent—an innovation to which we think it will be difficult to gain agreement, and which we believe to be not the best calculated to attain the object.

LEASING SYSTEM FOR COAL LANDS WILL PROVE A FAILURE[1]

A leasing system is still less practicable as to coal lands. Competition is so sharp in the production of coal that no operator can hope to succeed unless he has the most improved machinery and the best facilities for mining and marketing his product. Enormous capital, therefore, must be invested in nearly every instance, and a railroad must be built to the mine from the nearest operated line. Men will not make such large investments when they can obtain only a lease, subject to forfeiture for failure to perform any of its provisions.

No better illustration of this fact exists than that found in the testimony of Governor Spry of Utah before the House Committee on Public Lands. He said:

> We have the Utah Copper Company out there in Salt Lake Valley, operating at Bingham Canyon, about twenty miles from the city. There is a company that went in there, and solely because of confidence in that dirt they spent $30,000,000 before they had $1 returned to them from profits.
>
> If we had put that proposition (referring to a leasing system) up to the Utah Copper Company, they would have laughed at it.

Governor Spry further testified that the company employs three thousand men and is responsible for a population of twenty-five thousand people in the Salt Lake Valley. Under a leasing system capitalists would not have developed this great property. Consequently the nation would not have received the benefit of its large product, with its influence in lowering prices, and Utah would not have received the additional twenty-five thousand inhabitants.

[1] From article A Federal Leasing System, by Honorable John F. Shafroth, Senator from Colorado. American Mining Congress. Proceedings. 1914. p. 213-16. Denver, 1915.

Is it not plain that a governmental leasing system is impracticable, especially as to large enterprises, and is it not equally plain that the states affected would thereby be retarded both in development and population?

Capitalists will not lend money to open up, develop and buy expensive machinery for coal mines held under leases, subject to forfeiture. Who ever heard of a bond issue secured by mortgage upon a leasehold mining estate? There is no market for such bonds. Hence the enterprising business men, unless they are very rich, will practically be excluded.

Now, nearly all of the large coal companies are organized by men of small means, who interest the capitalists in the enterprise. Lessees usually work the mine to their own advantage and not for its permanent improvement, as do proprietors.

The state of Colorado owns enough coal land to supply the inhabitants of that state for three hundred years, yet it is able to lease only 3 per cent of its coal lands at 10 cents per ton royalty, and less than one-half of those leased lands are being worked. Although there are leasing laws for coal on state lands in Wyoming, Utah, Idaho, Oregon, New Mexico and North Dakota, yet no one has found it sufficiently attractive to take out a lease in any of those states. If a leasing system backed by the good object of obtaining money for school purposes in the lessees' own state is a failure, how much more certain must be the failure of a system by the Federal government, the royalties of which the people feel are wrongful exactions?

A most inconsistent position of the government in connection with the leasing of its coal lands to its citizens arises from the fact that in order to make the system a success it must encourage the high price for coal, so as to tempt the operators by profits to enter into leases. On the other hand, the government owes a duty to the people to curb the price of coal, and hence discourage high prices.

Cost of Coal Under Ownership and Leasing Systems

While a leasing system by the government has been a success in some countries from the standpoint of the lessee, it has been a failure in those same countries from the standpoint of the consumer and to the industries dependent upon cheap coal. Under its system of mining the coal by proprietors the United States has produced the cheapest coal in the world and yet paid the highest wages to the miners. It is this cheap coal that has stimulated our production of iron, steel and many other industries.

In Senate document no. 482, by Thomas P. McDonald, there is given a table, compiled from official reports, which shows that under the system now in force in the United States the price of coal at the mouth of the mine is not much over one-half as high as in those countries which have a leasing system. Mr. McDonald's table, referring to bituminous coal, is reproduced, as follows:

Country	Year.	Tons.	Value per ton at mine.
United States	1911	405,757,101	$1.11
Novia Scotia	1911	6,208,444	2.01
New South Wales	1911	8,691,604	1.82
New Zealand	1912	2,066,073	
New Zealand (state mine)	1912	371,628	2.00
Victoria (state mine)	1912	396,042	2.28
West Australia		249,890	2.22

The following table, taken from the same Senate document, shows the price of bituminous coal per ton at the mine for 1911, according to the United States Geological Survey, to be even lower than that given above:

State	Tons.	Price at mine.
Illinois	53,679,118	$1.11
Indiana	14,201,355	1.08
Pennsylvania	144,754,163	1.01
Ohio	30,759,986	1.03
West Virginia	59,531,580	.90

These figures demonstrate that in the production of bituminous coal there is no monopoly in the United States. Nor can there ever be, since there is enough coal in the public lands to supply the world for five thousand years, and the lands can be disposed of under restrictions against large holdings, which will follow the title.

In view of these figures, can it be said to be practicable to change from the tried policy of the disposition by sale of the coal lands to a leasing system?

In the statement of Mr. McDonald before the Senate Committee on Territories, on May 7, 1913, on page 177 of the hearings, is the following:

> The keen competition in the production and sale of coal in the United States under our system of private ownership of the coal land is saving the industries that consume our coal, as compared with those countries operating under the leasing system, hundreds of millions of dollars annually. Our present consumption is about four hundred million tons per year. Now compute the annual saving to the industries of the United States on this annual coal bill of four hundred million tons as against New South Wales, a saving of $0.64 per ton, $256,000,000; Nova Scotia and New Zealand, a saving of $0.89 per ton, $356,000,000; West Australia, a saving of $1.11 per ton, $444,000,000; Victoria (state mine), a saving of $1.17 per ton, $468,000,000.
>
> This indicates a saving to the industries of the United States of approximately a million dollars per day—no mean advantage when we are seeking a world's market for the products of our mills and factories.

Because of these facts we contend that it is utterly impracticable for the government to establish a leasing system under which operators paying royalties can meet the sharp competition now existing among companies which own their own mines and use the most modern machinery for the extraction and transportation of coal. Hence the proposed change will result only in locking up the resources of the west, and retarding their development. By continuing the unlawful permanent orders of withdrawals or by accomplishing the same thing by excessive valuations, communities and industries may in a

few instances be driven to take leases, but for a general policy of development it will prove a failure.

For these reasons I contend that the establishment by the government of a leasing system for the natural resources of the public domain within the boundaries of a state would not be practicable.

HOW SHALL PUBLIC MINERAL RIGHTS BE DISPOSED OF?[1]

The mining men, like the rest of the people, will see that this big productive business belongs in the public-service class. Because its products are so largely necessaries of life the mining industry will be regulated by the people. The control of public mineral lands will be exercised largely through a leasing system; because in this way the public owner and private operator can best cooperate, and the purpose of this sympathetic cooperation will be to lower costs of production in order to permit reasonable prices to the consumer; at the same time provide fair wages to the mine worker and adequate profits to the capitalist and operator.

The new laws need to recognize every factor in the complex task of taking something out of the ground and making it useful. Every man who has a part in this undertaking, from prospector to ultimate consumer, has his rights, and these rights must be recognized, measured, and protected. All these men are in reality partners in the enterprise.

We want these laws for the coal and oil and phosphate lands, first of all, for the sake of the citizens who wish to use the mineral product from these lands. As consumers we are all concerned with prices, and to bene-

[1] From address of George Otis Smith, Director of the United States Geological Survey, before the American Mining Congress. Coal and Coke Operator and Fuel Magazine. 22 : 583. October 30, 1913. (Since the above was written coal mining leases have been provided for under Act of February 25, 1920.)

fit the many as well as the few legislation must favor low costs. Therefore, the first essential of mineral-land legislation is that no provision in the law should place any unnecessary charge, burden, or operating cost upon the operator. Accordingly, no royalty should be imposed with the primary purpose of revenue. The most recently issued water-power permit provides that the Federal government shall receive a royalty which varies directly with the square of the average price paid by the public for the electric current. The less the consumer pays the less the government receives.

Second in importance is the need of offering to the developer of an unused resource an inducement commensurate with the hazardous or speculative character of his undertaking. This cuts both ways. To promote development mining laws should attract the men having the knowledge and capital necessary to engage in the business of mining; but too often, in the past, the practice has been for the majority of locators to sit by and watch a few real miners test out the ground, when, if a strike was made, these hangers-on at once had valuable claims to sell. This means unearned increment in large amounts, and, in the end, the consumer pays for it. To continue this kind of a mineral-land lottery is bad economics. On the other hand, any law for the disposition of mineral land, whether by lease or not, should provide large rewards for the real prospectors, who often stake their all against an uncertain and secretive nature; when they lose out they have no redress, and when they win their discoveries usually add more to the nation's wealth than to their own pockets. They deserve to be in the preferred class.

A third side of this proposition is the question of the inalienable right of each citizen to his share of the nation's mineral wealth as the "something for nothing" that goes with American citizenship. The citizen's right and interest in any undeveloped minerals is a double one —first, that measured by the possibility of the mineral

being mined and thus made useful at a cost to him that shall not be unnecessarily high; and, second, his right to an equal chance to undertake mining within the limits of his own ability. He has absolutely no right to a speculative profit from public mineral lands, and his profit as a producer should be measured by his own productive contribution.

Federal legislation should recognize classes of land, and while the title to the surface of lands suitable for agricultural use should be granted in fee, thus continuing the wise policy of encouraging home-making, public interest and the need of protecting the consumer against private monopoly are believed to justify the reservation by the government, at the time the surface patent is granted, of all mineral wealth beneath the surface, for separate disposition under mineral land laws. In private transfers of land the reservation of mineral rights is becoming more and more the common practice.

Possessory title to the mineral land should be retained in the government as a practical method of assuring development under the best conditions. Let us regard the Federal government as a trustee rather than as a sovereign landlord, and the idea and purpose of proprietorship by the people become more easily understood.

The application of the lease idea to the mining of precious metals, while logical in certain respects, is not at all of comparable importance with its application to what have been termed "public utility" mineral resources, such as coal, petroleum, phosphate, and potash. The mining law should provide for prospecting permits that will give exclusive occupancy during periods only long enough for full exploration by only bona-fide prospectors. The annual-assessment farce has had a long enough run. The prospecting permit will ripen into a lease whenever the results of exploration justify the operation of the property on a producing basis. Where the proof of coal or oil or other mineral substance in minable quantity is a discovery of the type termed "wild-cat," in the case of

oil, the prospector rendering such service to the industry and to the public should receive his lease upon purely nominal terms.

The essential features of the lease should be conditions enforcing full and continuous use, economy and safety of operation, and control of occupancy. Transfers should not be prohibited, but made subject to approval by the people's representative. If in any region large units of production are seen to favor lower costs and a longer-lived industry, all for the public good, consolidation of holdings should be encouraged and transfers of leases permitted; but if the purpose of large holdings in monopolization in order to curtail production and raise prices transfers to that end should be denied the executive approval necessary to make them effective. The advantage of the lease is that it allows the government to exercise continued control in the public interest.

LEASING OF MINERAL LANDS[1]

Reformers, or so-called conservations, in their recent efforts to secure or conserve for the people a greater share of the proceeds of the mining enterprises on the public lands, have fixed upon the leasing method as the one best adapted to secure this end, and hope to substitute it instead of fee simple sales. They would distribute in various ways for the public good the royalties arising from such leases, and so avoid the chance that an increased market price for the products might result eventually in an unduly small royalty, they would require short tenure leases, that the royalty might be from time to time changed as the market value of the product varies, and thus reserve for the people a more equitable share of the proceeds; and all for the purpose of aiding the laws of conservation.

We respectfully submit, however, that this proposed

[1] By William Griffith, Scranton, Pennsylvania. Colliery Engineer. 34 : 167-8. October, 1913.

plan of short tenure lease is unsatisfactory, impractical, and one of the most wasteful that could be conceived. It has been abundantly proved, during the hundred years life of the coal industry of Pennsylvania, during which all sorts of titles have been held, that the short-term lease is exceedingly wasteful and non-conservative in its tendencies. The results of experience throughout the mining and industrial worlds prove that there is an economic law governing these matters, which must be recognized by all conservationists everywhere; viz., short tenure tends toward small operating units, careless methods, extravagant waste of national resources, with excessive loss of human life; while long tenure promotes large operating units, careful and scientific methods, with the greatest possible conservation of life and property. The courts in many of the states have declared over and over again that a perpetual lease, that is to say, in case of a mining property, a lease until all the mineral in the land is exhausted, is a sale, the royalty being payments on the instalment plan. If, therefore, it is determined that the public lands of this country shall be leased, the proper sort of holding would be a perpetual lease, so called, or as near approach to it as may be possible; not less than fifty years—unless the mineral is sooner exhausted—with rights of renewal. In order that the royalty may fit the fluctuating physical and market conditions, it should be arranged on a sliding scale, automatically adjustable—a percentage, if you please, of the market value of the product, thus obviating the necessity of frequent changes of lease and royalty. There are a number of reasons why titles held on this plan are very advantageous, some of which we will briefly enumerate below:

A perpetual or long-term lease is advantageous for the lessor or owner, and for the lessee, whether prospector or operator. It is best from the viewpoint of the financier. It tends to the greatest conservation of resources and human life. It is best for the people, and tends to reduce speculation.

It is best for lessor:

1. Because it tends toward large operating units, induces permanent equipment, and is attractive to substantial experienced operators.

2. It tends toward the greatest conservation of the raw material and the least loss of human life, through the introduction of scientific and workman-like methods and life-saving devices, resulting in a greater out-put and larger returns of royalties, and is consequently more remunerative to him than an outright sale.

It is best for the lessee:

1. If a prospector, it encourages exploration, discovery, and development, and would secure to him a sure reward with the least outlay, for if he shows a good prospect his lease is more salable than a fee-simple title, because there is less money at stake and less hazard on the part of the purchaser.

2. If a lessee is an operator, it is best for him, because the money which he would otherwise invest in a fee-simple title may be used to prove the property, and if found good, to develop and equip. He thus secures the property on its merits, and can regulate his investment accordingly. If the developments show the property to be worth it, he will be warranted in installing substantial equipment, and his title affords suitable security upon which, if desired, to borrow the necessary capital. If his provings show the property to be unsatisfactory, he may forfeit his lease, and thus save what would otherwise be lost through purchase of the fee-simple title.

Next to the fee-simple title, a perpetual lease is the best from the viewpoint of the financier, because it tends toward more substanial permanent equipment, larger outputs, and profits, thus affording better security for loans, and permits long-term bonds which are more attractive to investors. Short-term leases or contracts, subject to changes at renewal periods, are poor security, and cannot be easily financed.

From the conservationist viewpoint the perpetual lease is preferable:

1. Because the lessee expects to exhaust all the coal, and therefore conserves the supply for the future by avoiding waste in mining, and to secure this end, can afford the expense necessary to install permanent, up-to-date plants, use the latest and best mining methods, employ competent engineering advice and means for preserving the lives and comfort of employees.

2. It is to the advantage of the operator for conservation purposes to experiment with and investigate new methods of mining and utilizing his production in order to make a market for inferior portions of the ore or coal which might be other wise wasted.

3. The quantity of ordinary waste or refuse material from large plants is so great that its possible value becomes an item of considerable importance, and is worth the expense of searching out new methods for its utilization and conservation.

Perpetual leases promote public welfare, because:

1. They will stimulate prospecting, and the discovery of new coal or mineral areas.

2. They hasten developments more rapidly than any sort of title.

3. They will produce revenue for school and territorial purposes.

The leasing method is not advantageous for the speculator in lands or mines, because his profits would necessarily be smaller than in case of sale of fee property, for the purchaser must pay twice; first, as a profit to the speculator; second, as royalties to the lessor.

The above general principles would seem to be universally applicable, and to apply with double force to the coal lands of Alaska, because the best coals of the territory are high-grade only because of their proximity to the volcanic rocks, and are therefore liable to be much broken, folded, or crushed through the movements or quakings common to eruptive measures.

On account of the unfavorable physical conditions, added to the high cost of labor and material, and lack of transportation facilities, the preliminary expense of properly proving Alaska coal lands for the operator will be unusually large. This must be done, however, before he is warranted in making the investments necessary to equip a mine plant. How much better, therefore, it would be under these circumstances if land could be purchased on its merits, by this instalment plan, instead of first hazarding the cost of a fee-simple title, which might ultimately result in a dead loss. Under the perpetual lease the rights of the prospector or operator may be well protected, and he is at all times posted as to the probable value disclosed by his development work, and may regulate his investments accordingly, without first being required to gamble on a fee-simple title.

The long-term lease is a very popular method of handling coal properties in the eastern United States. It is favored both by the land owner and by the operators. In fact, most coal operators would choose such a title in preference to investing so much of their capital in land purchases; but no one favors the short-tenure lease. The coal land owner, as the result of dire experience, views it as the most ingenious device ever instituted for the purpose of wasting his substance, and the operator regards it as a delusion and a snare. It deludes him with the pleasant but often-mistaken notion that he can pay out the investment with large profits before his short lease expires, and it becomes a snare when he gets it financially, and then finds that he can't get out.

COAL FOR CONSUMERS[1]

So obvious have the disadvantages of the profit motive in this industry become that the demand for "nationalization of the coal mines" is growing almost irresistible.

[1] By James Peter Warbasse. Nation. 115 : 244-5. September 13, 1922.

In each acute coal crisis more and more people are found advocating this plan for solving the problem. The indications are that nationalization of the coal mines is coming. The next coal crisis may witness its adoption. This means the political socialization of coal. While this plan may offer advantages over present methods, it also has disadvantages.

The postal employees furnish an object lesson which other workers should ponder before it is too late. These government-controlled workers have lost control of their jobs. They are forced into a deadly routine and are dominated by a machine-made bureaucracy. They are under the authority of an ever-changing head. They are forbidden to organize, which means that they are reduced to a state not far above peonage. They present the pathetic picture of a cowed class. Advancement is best promoted by waving the flag of the dominant political machine. This is what the miners invite when they advocate "nationalization." And, until they are taught to be properly submissive, they invite the soldier with his bayonet at the mouth of the pit to see that they stay in the ground and dig coal. Would a government capable of the Daugherty injunction be anything but a ruthless taskmaster over labor?

The people are not the government. If government ownership comes, it will be found that the people own just so much less property. The government is moving steadily toward appropriating the property of its citizens. It is moving unwittingly but surely. First comes government regulation, then control, and then ownership. The government will be found taking over industries as they break down under the profit system. The telegraph, telephone, railroads, and coal mines seem about to pass from the hands of some of the people to the hands of the government. Such change of ownership is coming about because the profit motive in industry ultimately means inefficiency, strife, and chaos. Instead of having less property the people should have more property—but it

should be ownership by the many who are concerned, not by the few who merely exploit. Ownership of property is a natural hunger. It promotes a sense of independence and responsibility. The government is an impersonal machine. It is not a particularly efficient machine and it is sometimes a most unjust and dangerous machine. The people, not the government, should own the coal mines and other natural resources.

The only way by which coal can be mined solely for the service of the people is for all the people who use coal to own the mines. Coal would then be produced for use and not for profit. And this is the end that must be reached if the coal industry is to be placed on a permanently sound basis. Coal should be mined and distributed not for the purpose of making profits for owners, nor for the purpose of making wages for workers; it should be mined to be burned—to be used—for just that simple purpose.

Government ownership is supposed to be a movement in the direction of the service motive in industry. But if the government should buy the coal mines today, the political power of the owners is so great that the valuation they would impose upon the mines would be vastly beyond the equity the owners have put in and would make coal a dear commodity for the consumers for a long time to come. The credit for the purchase of the mines would be secured by the issuance of long-term interest-bearing bonds, and another burden would be added to a deeply indebted government, a more powerful bureaucracy created to gnaw at the vitals of the state. Before the government takes this step it would be well for the consumers to anticipate it. The government does not want to take over the coal mines. It will resist doing so as long as possible. Not until conditions have become intolerable will such a step be considered. The government should welcome any plan that will save it this additional complication.

There is a way by which the government may be

of service to the people in helping solve this problem and at the same time save itself from a plunge into government ownership. A temporary coal commission, created by act of Congress, could provide a central machinery while the consumers are organizing to own and administer the mines. Such a commission should consist of an equal number of representatives of the consumers, the workers, and the mine owners. The chairman should be additional, and should represent the first class. In the meantime the consumers should organize locally, in state, and finally in a national federation by the well-tested and highly practical method of Rochdale cooperation. The coal commission should distribute coal to the public at a fixed percentage above net cost. The surplus saving accumulating from distribution to the consumers should be partly returned to them in proportion to their consumption and partly put in a reserve fund. This increasing surplus would serve ultimately for the purchase of local equipment for coal storage, handling and distribution, and finally for the purchase of mines. As the organized consumers come into possession of coal properties the coal commission would cease to have jurisdiction over such properties.

A survey of the coal situation is essential. We need to know: (1) The amount of coal of various kinds that is required for industrial and domestic use, (2) the distribution of these needs, (3) the locations of the most available and economically accessible coal with relation to the points of consumption, and (4) the value of the properties necessary to produce this coal. This information should be secured by the existing statistical and census agencies. It should be assembled by the coal commission and made available for the people.

The coal commission, although appointed by Congress, should be nominated by non-political bodies. An organization of mine owners representing more than half of the coal production, such as the National Coal Association, should be competent to appoint its representatives.

Similarly, a national organization representing more than half of the workers, such as the United Mine Workers of America, should be competent to make the nominations for the second class. To make this plan as non-political as possible, an organization of the consumers, representing at least one million members, such as the Cooperative League, or a combination of consumers' organizations, should be competent to make the nominations for the consumers.

It is suggested that the consumers acquire the local storing and distributing machinery before they buy mines, because it is a principle of cooperation, proved by experience, that they succeed best by first mastering the methods of distribution, by meeting the needs nearest to themselves as consumers, and then by working back step by step from retail distribution to wholesaling and then to production, rather than by reversing this order. The purchase of coal mines by the consumers should be the last step after the machinery of distribution has been perfected.

Further capital could be raised by a membership fee, or by the issuance of low-priced bonds or shares, which must be paid for, before cash savings-returns may be enjoyed. Government assistance by loans is highly undesirable, as the purpose of this plan should be to keep as far away from political subsidy as possible. Money loaned by municipal, state, and Federal governments to town, state, and national consumers' associations is practiced in France, Italy, Germany, Austria, and Denmark at the present time; but it adds undesirable political control and detracts from the self-help and voluntary character of the enterprise.

The principle involved in this plan is very simple. The consumers should own and control the mines which supply them with coal, and the funds to acquire the ownership should be developed by going into the coal-distributing business. The profits in coal are not

known. They are hidden away today. But if they are anything like the glimpses here and there revealed, it should not take many years to make the people owners of the mines and of the wealth that coal represents.

The purchase would be made by the use of the money which now is called "profits." It is an ever-flowing stream. At present this golden current moves steadily toward the pockets of the comparatively few dealers and owners. It has a volume sufficient to place the whole coal business upon a basis of service, if it is once shunted off so as to flow into the treasury of the consumers instead. The method of cooperative administration of such property has all been worked out and standardized by seventy-five years of successful experience in the Consumers' Cooperative Movement. Joint boards of consumers and workers harmonize the two interests, but the fact that the workers are consumers and have a voice in their consumers' organizations equal to any other consumer is a strong factor in promoting harmony of interests.

This method of expanding the ownership of coal mines to all the consumers can be brought about gradually and without social shock. It constitutes ownership and collective control by the consumers. It is distinctly different from "nationalization," government ownership, or government control. The cooperative plan does not confiscate or "take over" any property. Nor does it prohibit the continuation of private profit-making, coal-mining, and distributing. The presence of capitalistic coal business, competing with the consumers' business, should be a challenge to the latter to make itself more efficient.

The time for the consumers to secure possession of property by orderly purchase has come. It will actually cost them nothing. Chaos threatens. The world is moving on toward state socialism and the enlargement of governmental functions. By cooperation the people can protect themselves from this fate. By this method the people can own and distribute coal on a basis of service.

A MINING GUILD[1]

The coal commission is far more than a sign of the times: it is a landmark in social development. Its significance extends far beyond its immediate object, and beyond the industry with which it was appointed to deal. The occasion of its appointment was the threat of a national miners' strike; but its real cause was the breakdown of the capitalist system at its most vital point—the control of labour. For more than a century, the people of Great Britain have lived under a developed system of capitalist production and finance. The British worker has sold his labour for a wage, and has allowed himself to be used for the making of profits by the possessing classes. Huge wealth has been accumulated in the hands of that class, which has seemed, with every development of capitalism, to become more firmly entrenched in power and authority. But little by little, despite the growth of riches and the consolidation of capitalist enterprise, the inherent weakness of the existing system has been exposed. For it depends, and must depend, upon the acquiescence of labour. If labour refuses to sell its service for a wage, and is strong and determined enough to persist in its refusal, the whole capitalist structure of rent, interest and profits must come tumbling down. In short, capitalism depends upon the wage-system.

For some time past, ominous cracks have been appearing in the fabric of the industrial system. A new spirit of revolt and self-assertion among the workers has been gradually assuming a positive shape. A double protest has been registered against capitalism, and a two-fold demand put forward by labour. Against the system of production for profit labour has put forward its demand for public ownership of the means of production, and against the wage-system labour has pressed for the control of industry by the workers. This attitude is

[1] By G. D. H. Cole. New Age. 25 : 22-3. May 8, 1919.

found, in varying stages of development, in every section of the world of labour, especially in those industries which are most strongly organised. The Miners' Federation of Great Britain, the largest and strongest trade union in the world, has determined to secure not only the public ownership of the mining industry, but also at least a half share in its control and management under public ownership. In fact, the miners are demanding, if not a complete mining guild, at least the nearest approach to a mining guild that is practicable as an immediate measure.

Moreover, there is every reason to believe that the miners will secure the greater part of what they desire, not because the government wants to nationalise the mines, and still less because it wants to give the miners a real share in their control, but simply because there is no other way out of the difficulty. On the confession of all the members of the coal commission except the coal owners themselves, capitalist control in the mining industry has broken down and cannot be restored. The real point at which this breakdown has occurred is the determination of the miners not to work any longer for capitalist wages and to demand a real share in the work of management. If capital cannot control labour, a new way of carrying on the industry has to be devised.

Naturally, the first thought of the capitalists—at least of those who realise the bankruptcy of the old system—is the admission of labour to a share in control in conjunction with the present owners. In this way, it is hoped that something at least may be saved for the profiteer from the wreck of the wage-system, and even, if all goes well, that the system may be strengthened and the workers bound once more firmly to it by a participation in profits. This suggestion, however, has not survived the opposition of the less far-sighted coal owners; and it would, in any case, have been met by a flat refusal on the side of labour. The workers do not want a share in profits: they want to rid industry

of profits and of wages, and to reconstruct it on principles of self-government and social service.

In the paragraphs which follow, embodying the summary of evidence presented by the writer as evidence before the coal commission, an attempt has been made only to outline the steps which can be taken immediately toward the creation of a national coal guild. The assumption of ownership by the state and the establishment of a system of control as far as possible removed from bureaucracy and as nearly as possible approaching democracy are the essential features proposed. It must not, however, be imagined that the organisation outlined in these proposals is a national guild: it is not. The creation of a complete mining guild will be a work of time, and no one can state in detail the form it will finally assume. I have only tried to indicate the immediate steps which lead toward it with a full consciousness of the inevitable defects of any organisation that can be set up today in a hostile environment of capitalist production.

In the first place, a national guild will be entirely self-governing in its internal affairs. It will be an association including every person—workman, technician, administrator, clerk—necessary to the carrying on of the industry, and animated by a common consciousness of service on the part of all these persons and sections. We are still far from that ideal. Administrators and technicians have still for the most part to realise their essential unity with the manual workers, from whom they are held apart by the economic class divisions of capitalist society. It is not possible at the present stage to assume this unity: it is only possible to pave the way for it in some such fashion as I suggest. But I do firmly believe that, if the proposals I have made are put into operation, it will not be long before this essential unity is brought into being. The state can then resign those functions of control which it must exercise temporarily by nominating the representatives of the tech-

nicians on the mining council, and the rapid evolution of a mining guild will thus become practicable.

But, even so, the guild would still be essentially incomplete; for no single guild can be complete in itself unless it is surrounded by other guilds in the industries and services with which it has connection. These first steps toward a mining guild must be complemented by similar steps in the reorganisation of the railways and other transport services, of the post office, and of every other vital industry and service. If the coal commission does its work well, its results will serve as a model, not only for the mining industry, but for every other industry in which the old order threatens to dissolve and the wage-system to become unworkable. As industry, as a whole, adopts guild organisation, the problem of representing the coal consumer is simplified, and the state can take a further step backward from industrial control.

Yet, even if all industry were organised on guild principles, there would remain an essential thing undone if the machinery of political society remained unchanged. I have suggested one small political reform—the adoption of a system of committees by the House of Commons, and therewith the dissolution of cabinet responsibility for departmental affairs in the economic sphere. I believe that this reform would be only the prelude to very much bigger changes and to a further functional separation of the present work of Parliament and of government departments. A guild system in industry will compel a reorganization of political machinery, and, if a dangerous break is to be avoided, the two forms of reorganization must proceed simultaneously to the fullest possible extent.

For the building of a guild, the vital problem at the present time is that of the relations between the workers, ordinarily so called, and the professionals, technicians and administrators. All this personnel of "management" is today hovering between the two camps of capitalism

and democracy, doubtful of its allegiance. Its social traditions and its immediate economic outlook tend to make it, to a great extent, the ally of capitalism: its desire to be free from the burden of profit-making for others and its own seeking for control and self-expression tend to make it at the least a hesitant and suspicious ally. At the same time, while many of its members are in keen sympathy with the demands of labour for freedom and control, it hesitates to take the plunge of alliance with labour, partly because of economic and social differences, and partly because it fears that it would receive neither warm welcome nor proper recognition from the manual workers.

I want to see the "management" allying itself with "labour," and I want to see "labour" extending the hand of welcome to the "management." Both the technician and the manual worker are necessary to industry, and the technician will be more than ever necessary in the difficult times of transition that lie ahead. Get the profit-making basis out of an industry, and establish a system of joint control by the various elements necessary to it, and surely these elements will rapidly coalesce and learn to cooperate. I, at least, believe that they will; and it is on this belief that I build my principle hope for a mining guild.

This cooperation must be local as well as national: it must be found in each separate pit fully as much as on the mining council. It will be necessary, if a system of industrial democracy is to reach its fullest efficiency, to enlist the active cooperation of every man in the industry by the greatest possible devolution of control. The present industrial system has tended to centralization because it has been autocratic; state socialism would tend far more to centralization because it would be bureaucratic: the guild system, based on democracy, tends necessarily to local freedom and decentralized control. It will depend for its success on the degree in which it

succeeds in eliciting the active help and personal interest in service of the ordinary man; and the way to secure that end is by giving to the ordinary man the biggest share in control that he is able to assume. This idea fills with consternation those who believe that the world is peopled by a few great men and a multitude born to slavery—a view which is almost universal among politicians and business men. The guild system implies belief in the capacity for free service and self-expression of the ordinary man. It may take long to call out the fully human qualities which the wage-system has debased and driven below the surface. But these qualities exist, and can be called back to the light if the right motives are exercised and brought into play. It is our business so to organize industry as to appeal to the best, instead of to the meanest, of motives.

NATIONALIZATION IN ENGLAND[1]

During the past year the term nationalization, as applied to natural resources, the railroads, and even to large-scale industries in general, has obtained wide usage in Great Britain. It is recognized as one of the most urgent political and industrial questions of the day. With a view to presenting clearly the arguments for and against nationalization, the London Review of Reviews publishes two articles by writers who hold divergent views on the question. but whose knowledge of economic and industrial conditions gives special authority to their statements. Sir Leo Chiozza Money states the case for nationalization, while Mr. Hartley Withers summarizes the argument on the other side.

The article by Sir Leo C. Money is devoted largely to an exposure of the failures of capitalism in England before and during the war and the brilliant success of the

[1] From Review of Reviews. 60 : 632-3. December, 1919.

policy of state action, especially in the matter of munition factories and shipping. The six points advanced in behalf of the policy of nationalization are as follows:

1. The essential supplies and products of a nation must in the interests of public safety and welfare be nationally owned and controlled.

2. It is of the utmost importance to take national action to conserve national products such as coal and timber.

3. It is essential that every transport facility should be removed from commercial (*i. e.*, profiteering) control, and vested in public authority.

4. The motive of private profit as a stimulus to production and distribution is a proved failure.

5. Throughout the world public ownership has grown apace in the last twenty years, and everywhere been so great a success that no state or city has ever sold out an undertaking once acquired.

6. The conception of democracy is inconsistent with the private ownership of the means of work.

Mr. Hartley Withers, the editor of the Economist, takes issue with the advocates of nationalization in regard to the claims for successful state action in the war. He asks, "Was not the war won by the efforts of our fighters and civilians, in spite of the muddling and profligate extravagance of the government? The government did great things in the production of shell and weapons, but it had all the resources of the nation united behind it for a great cause, and it had the enormous advantage of knowing exactly what had to be produced. It had not to face the real problem of industry in normal times, of producing goods to meet the fluctuating whims of the world's demands. There was no call on its judgment. As to its conduct of industry, in competition in neutral markets with individual enterprise, one can only feel the gravest fear."

Mr. Withers admits that expert managers, trained in

competitive industry, would for a time at least be available in nationalized industry, but he is not at all sure that they would be chosen and he is very nearly sure that if they were chosen "they would soon lose all initiative and enterprise in the deadening official atmosphere."

The argument that nationalization of industry secures industrial peace has been overturned in England by the railway strike, and rather than set up a new system, the success of which is at least doubtful, Mr. Withers is convinced that it would be wiser to set about the amendment of the system of private capital, great as the faults of that system may have been. That change would also be easier to make.

Mr. Withers also dwells on the moral argument in favor of competition—that by stimulating each man to do his best so that he may win in the race for profit the capitalistic system produces gains to the community which more than balance the waste of which it has been found guilty. When we compete with our rivals and strive to gain at their expense, the real goal for which we are racing is the service of those who buy our products, in other words, the consuming community. The division of labor has made us all dependent on one another and we produce goods and service to be exchanged for those produced by others. Competition implies cooperation.

AFFIRMATIVE DISCUSSION

MYSTERIOUS KING COAL [1]

King Coal numbers his subjects by the million. They pay him tribute in life and money. They know his rule is unjust, but they don't see what can be done about it. His throne is in Wall Street.

John Doe grumbles when he pays $14 for a ton of coal. Richard Roe grumbles when he gets only 77 cents for digging it. King Coal's subjects are murmuring more than they used to. Six hundred thousand of them have combined in protest. It is a peaceful rebellion and the king is rather amused. He repudiated the magna charta, he permitted his barons to sign agreeing to a conference. He knows that starvation and cold will drive John and Richard back to his throne whimpering. He may even make more advantageous terms with them than before.

The king owns all the mines. That settles the whole question. Time honored custom has established his right to do what he will with his own. He need never look at the property he has inherited; he is supreme regardless of the needs of John Doe and Richard Roe. His right to use any force to protect his property is undisputed. It is a sacred duty. His airplanes once dropped twenty-nine bombs on Richard Roe's family, killing his wife. The papers did not so much as mention the occurrence. They stressed instead Richard's violence in fighting for his family.

The king has underground methods of dealing with his underground workers. He spreads the report that Richard and his pals refuse to dig more than five days a week, whereas he refuses to give them pay for as much

[1] From Arbitrator. 4 : 1. May, 1922.

as five. He publishes a fictitious income of comfortable proportions as Richard's, lamenting his own poverty. He tells John Doe that the high cost of fuel is due to the exorbitant wages demanded by Richard Roe. Then he reduces Roe's pay. He refuses to tell his own income. The very suggestion of that is lese-majesté.

The king complains that mining is an extremely hazardous undertaking. He ignores the danger to Richard's life and limb.

He claims that only under his ownership can the industry be properly managed. John believes this. Richard is beginning to think that he and John might make a better job of it together. He has engaged experts who have reported enormous waste, over-development, stupidity and speculation. Richard timidly suggests that it might be to the advantage of both John and himself if the king were deprived of his ownership. The faithful subjects of the king will not listen to the reasoning that the welfare of the many is superior to the luxury of the few.

With investments of $1,175,891,000 the king lives very well. John and Richard do not. All through the world other kings are being dispossessed. King Coal laughs.

OBJECT LESSON IN MONOPOLY [1]

The lesson taught by the anthracite situation is unmistakable. The advantages and disadvantages of the private monopoly of natural resources are clearly portrayed. The conclusion is unavoidable.

Since the private ownership of the anthracite coal fields came to its logical fruition, in the formation of the Anthracite Coal Combination of 1898 the workers have gained somewhat, the consumers have lost somewhat. The supreme advantage of this private monopoly of a vital natural resource has gone to the private owners.

[1]From The Coal Question by Scott Nearing. p. 37-41. Rand School of Social Science. New York. 1918.

When the crisis came with the winter of 1917-1918 the whole scheme failed utterly.

The anthracite coal fields are only one of the natural resources that is being rapidly brought under the control of small groups of financial and industrial leaders, through the system of private land ownership under corporate control. The lessons from the anthracite coal fields may be regarded as typical of the results that will follow from the monopoly of other equally important resources.

The consumer must always carry the first and most direct burden of monopoly. Monopoly prices are fixed at a figure that will yield "all that the traffic will bear." Increased costs of carrying on business, no matter what their origin, are passed on by the monopoly to the consumer in the form of increased prices. The power of substituting some other commodity for the one that is the subject of monopoly limits the price that the monopolist may charge. Subject only to this power of substitution, the monopolist gets all that he can.

The worker gains nothing from the presence of monopoly. As an employee of the monopoly, he is paid wage rates that are not materially different from the wage rates paid in competitive industry. The present method of fixing wage rates, by competition in the open labor market, makes it inevitable that this should be so. Industry pays for labor not what it can, but what it must. Even though a monopoly could afford to pay a much higher wage than a competitive industry, it need not, and therefore does not, do so.

The monopolist is the real gainer from monopoly. The worker who serves the monopolist is paid the going rate of wages, and while the consumer foots the bill, the monopolist records his advantage in the form of increased dividends.

The figures show conclusively that these things are true of anthracite. There is good reason to believe that

they will hold no less true for other equally powerful natural resource monopolies.

The facts cited thus far have referred to the financial cost of monopoly. They are definite. They are significant. They are the only monopoly facts that can be measured in figures.

There are other aspects of the monopoly problem that are more far-reaching than any mentioned thus far. Monopoly affects the economic, social and political organization of society in many fundamental ways.

The economic effects of monopoly are of far-reaching consequence. The monopolist controls the jobs or opportunities for work; second, he has a price-fixing power over the thing he produces; third, he has an automatic income-yielding machine; and fourth, his monopoly power enables him to appropriate values socially created. These four economic effects of natural resource monopoly give the monopolist a position of overwhelming advantage.

The social effects of monopoly arise largely out of its economic effects. Monopoly creates inequality; makes for class distinctions; produces exploitation and makes impossible equality of opportunity. In all of those ways monopoly affects the organization and progress of society.

Among all of the serious results of natural resource monopoly, perhaps the most serious is the fact that it denies opportunity.

Beside the economic and social effects of monopoly, there are certain political effects, equally well defined and equally undesirable in their out-croppings. Theoretically the citizens of a democracy are the government. Practically, the monopoly of natural resources vests a section of governmental power in the natural resource monopolists.

The most vital governmental power is the taxing power. The power to tax includes the power to destroy. The taxing authority holds life and death power over his subjects.

What is the taxing power?

Originally it was the right exercised by those in authority, to levy on their subjects. These levies included war duty, labor in the construction of some public work, a percentage of the produce of the land, or, in later times, money.

Earlier ages knew no such thing as a regular tax rate. The rule of the tax gatherer was "get all you can."

Many of the early American colonists fled from just such tyranny. They feared taxes because taxes meant want for the tenant and luxury for the proprietor.

Politically, no phase of monopoly is so important as its taxing power. The powers of government are divided between the people (or their representatives) and the owners of the natural resources. Although the facts are not available, there is every indication that the tax paid each year by the American people to the owners of special privilege is greater than the entire amount paid by them for the maintenance of the local, state and national governments.

However attractive the plan for the private ownership of natural resources may have looked to the early settlers of America; whatever escape it may have offered from the grim tyranny of European landlordism, the project apparently has failed. It was designed to promote ambition, initiative and thrift; to create opportunity and to increase the possibilities for life, liberty and the pursuit of happiness. In practice, it has led to a new form of monopoly—the monopoly of industrial opportunity.

The private ownership of natural resources has gone farther. By giving to individuals the exclusive right over the choice bits of the earth's surface, it has placed in the hands of these individuals an immense power—economic, social and political. Thus the private ownership of natural resources has centered in the hands of the resource owners an immense authority over the destinies of mankind.

The chief resources are today owned by corporations which have neither energy, thrift, ambition, nor any other

human virtue. Instead, they are legal entities, with perpetual life, limited liability and an immense range of authority. The ownership of most of the important resources has passed from the individual to the corporation, and with that transfer there has gone practically every one of the original arguments in favor of the private ownership of resources. The founders of American democracy were aiming at individual ownership. The revolution in the form of industrial control has made the ownership largely corporate.

Although the chief reasons in favor of the private ownership of natural resources have been swept out of existence by the inauguration of corporate ownership, private ownership remains—a special privilege under the control of the few, and carrying with it a monopoly power of the most sweeping character. Exercising its authority as a means of augmenting profits, strangely blind to the public weal, the monopoly of the means of life threatens to wreck this civilization as it has wrecked its predecessors.

Natural resource monopoly entered our civilization as a friend and benefactor. Time and experience have shown that a wolf was hiding under the sheep's clothing.

The lesson of natural resource monopoly—as it appears in history, as it exists in the anthracite fields, as it may be found in other American resources—is unmistakable. The benefits go to the privileged few, while the great majority of men pay the bill.

GOVERNMENT OF COAL [1]

The rights of miners rest on the wrongs of miners, and these are manifold. We name them over: slack work, low wages, disease, bad housing, over-hard and unnecessary work, accidents, sudden and violent death.

[1] From pamphlet Government of Coal, p. 22-4. United Mine Workers of America, District no. 2. Clearfield, Pennsylvania.

And we say these ills are incurable while profits rule the lives of men.

These wastes of coal, which we have detailed, are not remediable details of a going concern. They are the central defects of a demoralized industry, of a ramshackle empire of profits. The central defect is the competitive organization of the industry. Under the present unsound government of the industry, under the close margin of competitive profits, the necessary changes are impossible. The government of coal has broken down. It fails to give safety and happiness to its producers. It fails to give prosperity to the people. In putting a natural resource inside the control of one group we have committed an act that is un-American. The character of public utility which inheres in coal demands a national policy. It must learn to be obedient to the American tradition and the economic law that have governed the waterways, the post office, the forests, irrigation, reclamation, waterpower. Energy, health, education—these are matters that transcend the higgling of the market and the intrigues of profit-makers. Against the facts of colossal waste we oppose the American principle of conservation.

In Pennsylvania, in the bituminous fields, we have twenty-five hundred mines, and seven hundred and fifty-six separate coal operators or companies. In the United States there are several thousand competing coal companies. For the ills of this afflicted industry only three remedies are conceivable.

One is the mines for the miners. That is syndicalism. It is class-control. We reject it.

One is a super-syndicate. It is doubtful if a giant monopoly could gather up the bituminous industry. The "snowbirds," the wagon mines, grow in the backyard. Coal springs up over night in a new place. But suppose a trust is possible. This would mean that we let some

strong man from Wall Street do to coal what Gary and Schwab have done to steel, what Rockefeller did to oil. Trust control is excellent in its unity, but it is costly to the consumer and deadly to the producer. Its benefits go to the business group at the steering wheel. Its economies are done to the tune of a rising price. Its control is anti-social. Industrial unionism of the capitalist, as seen in steel and oil is not acceptable. It is essentially un-American. We reject it.

The goodness of God, the bounty of nature, has given coal to our country. The miners did not create coal. The owners did not. Only the community are the rightful masters. Social ownership is the solution for coal. We demand it.

The miners must have their part in this national policy for coal. There will never be peace in the coal fields, till there is democracy in the industry. The workers in their progress have gone from a crowd to a union, from wrongs to rights, from grievances to government. They will continue to demand a share in the responsible government of industry, and an increasing share.

The steps are clear. There must be unification of the industry, an end made of the profit-making juggleries and competitions. This is an economic need, not a political doctrine. It is the extension of the American practice in regard to public utilities.

The structure of government in this reorganized industry of coal must be worked out, not by government fiat, but by collective bargaining. The miners, the producers of coal, are vitally concerned in good government for coal. Their self-interest is in line with the public interest. Every bit of inefficiency and waste that injures a public service is an attack on the workers. Their future is bound up with an organic and unified industry.

This policy for coal, this idea of a public utility, is a native growth with its roots deep in American experience.

Every step has been tested by time and approved in practice. We hold this natural resource in trust for the future. We miners mean to be true to that trust.

RESOLUTIONS ADOPTED BY NATIONAL CONVENTION[1]

Nationalization of Mines

Coal mining is a basic industry, indispensable to the economic life of the nation, and to the well-being of the nation's citizens. The all-important coal resources of our country are owned and controlled by private interests. Under the prevailing system of private ownership, coal is mined primarily for the purpose of creating profits for the coal owners. The production of coal under this system is characterized by an appalling economic waste. The incomparable natural resources of America, and particularly those of timber and coal, are being despoiled under a system of production which wastes from 33 to 50 per cent of these resources in order that the maximum amount of dividends may accrue to those capitalists who have secured ownership of these indispensable commodities.

We hold that the coal supply of our nation should be owned by the commonwealth and operated in the interest of, and for the use and comfort of all of the people of the commonwealth. Countless generations of men and women will doubtless follow us, and the American people of this generation owe a solemn duty to them in protecting with jealous care and conserving with wise administration those great treasures that a bounteous nature has bestowed upon us in such generous measure.

Our coal resources are the birthright of the American people for all time to come and we hold that it is the immediate duty of the American people to prevent the profligate waste that is taking place under private owner-

[1] From United Mine Workers Journal. 32 : 4. October 15, 1921.

ship of these resources by having the government take such steps as may be necessary providing for the nationalization of the coal mining industry of the United States.

Under private ownership, where production is conducted for private gain, the spirit of the times seem to be: "After us the deluge." This must be supplanted by a system where production will be for use and the common good, and economic waste will give way to conservation of the nation's heritage in the interest of posterity.

We, the United Mine Workers of America, in International Convention assembled, representing the workers who have their lives and the welfare of their dependents invested in the coal mines of our country, do therefore resolve:

That we demand the immediate nationalization of the coal mining industry of the United States. That we instruct our international officers and the International Executive Board to have a bill prepared for submission to Congress containing the following provisions:

First. That the government through act of Congress, acquire title to all coal properties within the United States now owned by private interests; by purchasing said properties at a figure representing the actual valuation of said properties, as determined upon investigation by accredited agents of the Federal government.

Second. That the coal mining industry be operated by the Federal government and that the mine workers be given equal representation upon such councils or commissions as may be delegated the authority to adminster the affairs of the coal mining industry; or the authority to act upon the question of wages, hours of labor, conditions of employment, or the adjudication of disputes and grievances within the industry.

Third. Realizing as we do that the masses of the American people, while they have been dispossessed of their rights of ownership to the coal and other natural resources upon which their well-being depends, still own

and control the government of the United States whenever they care to exercise their power in the matter; and realizing that the success of our effort to secure nationalization of the coal mining industry depends upon our ability to convince a majority of the American people of the justice of this proposal, we herewith further instruct our international officers and International Executive Board to use their every influence to bring our demand for nationalization to the attention of the American people, and to endeavor to secure cooperation and support of every progressive force and every liberal-minded individual, with a regard for our duty to posterity and a belief in the principles of common ownership of our natural resources, to the accomplishment of this end.

We further instruct our representative to urge in the coming conference with the representatives of the railroad workers' unions, a working alliance for the purpose of securing the adoption of the Plumb plan, for the nationalization of railroads, as the initial step in the fight for the principle of nationalization, with the understanding that such alliance will continue to press the issue with unabated vigor until the principle of nationalization has been extended to embrace the coal mining industry of the nation, and be it further:

Resolved, That our organization, for the reasons set forth above, carry its fight for nationalization of mines into the Dominion of Canada, and throw its influence, wherever possible, behind our members in Canada to the accomplishment of that end.

CONSERVATION AND PUBLIC OWNERSHIP OF NATURAL RESOURCES[1]

Whereas, Our fore-fathers fought for political freedom and to establish democratic government, the purposes of which are to insure equal rights and opportunities for all, and

[1] Resolutions presented by the Resolutions Committee of the Public Ownership Conference and adopted, November 15, 1919. Public Ownership Conference. Proceedings. 1919. p 273-5. Chicago.

Whereas, Modern inventions, the development and use of natural resources, improved methods of transportation, communication, production, distribution and modes of living, have rendered industrial and economic democracy quite as essential as political democracy in serving and rendering equal opportunity to all, and

Whereas, Industrial and economic tyranny may be, and often are quite as unjust and unbearable as political tyranny; and the incentive for political and economic domination by private interests, thru control over the natural resources and the public service monopolies (depending on charter rights and franchise grants), are especially strong, active and pernicious and

Whereas, The purpose of political freedom and democracy has been largely nullified, or wholly defeated by the dominating and corrupting influence of concentrated wealth and control of resources and production in the hands of selfish and unscrupulous men; while common good and welfare of all, demands that great or arbitrary power, either political or economic, shall not be placed in the hands of any one man or group of men, and

Whereas, Our natural resources, water power, coal, oil, gas, timber, iron ore and other minerals, which are the common heritage of all, have been, and are controlled, exploited and wasted in the interests of gain and private profit, not alone resulting in great loss to the present generation, but to the lasting injury to posterity, and

Whereas, The natural resources can only be developed, used and conserved to the interests of all, by nationalization, or public ownership, and

Whereas, The monopoly control of the great natural resources has so enriched a certain group, that it has been able to exert a dominating influence, if not actual control, over the railroad transportation, banking interests, publicity agencies and other economic institutions of the country for their own ends and further enrichment, and

Whereas, The private ownership of coal has been replete with the exploitation of the worker, and at the

same time there has been an almost constant rise in price to the consumer, and the greed for profit as well as the industrial unrest and labor disputes of the present and past months have left the entire country, at the court injunctions against the coal strike, or strikers, with the consequent suspicion and mistrust of the motives and fair play of such proceedings, with possibly no actual accomplishment for good, in any effort to mitigate, or correct the evil results of exploitation and industrial turmoil, and

Whereas, The water power is the only remaining natural resource that has not fallen entirely into private hands for exploitation and profits and there appears to be no reason why national government should not undertake the development of many, if not all, of these remaining power projects on practically the same basis it worked out and put in use in the reclamation projects in arid regions since legislative bills now before Congress do not adequately safeguard the public interests in the water power projects by the reservation that the United States, a state or municipality, shall have the right to take over any water power project that has been developed by private interests, by paying the net depreciated value of the property, at any time, after reasonable notice, and

Whereas, The nation is now experiencing a period of unprecedented high prices largely as a result of exploitation in utility service and monopoly control of necessities of life, therefore be it

Resolved, That we, the Public Ownership League of America in conference assembled, express our belief in, and devotion to, the principles of public ownership and operation of all our great natural monopolies, as well as those created by economic conditions.

That we pledge ourselves to do everything in our power to bring about the actual accomplishment of public ownership in the interest of the common good,

That we urge upon Congress and the President of the United States the desirability and necessity of the

conservation and public ownership of our natural resources, as well as others of an economic nature, as the only means of protecting the people from exploitation and extortion,

That we, accordingly, recommend and urge that the following committees be appointed to thoroughly investigate and report on the conservation, development and nationalization of, 1. the water supply and power; 2. the coal supply; 3. oil and natural gas supplies; 4. timber supply and timber lands, reforestration, etc.; 5. the iron ore supply; 6. other mineral resources, and 7. such other natural monopolies resulting from economic conditions that are necessary for the well-being of the people as a whole,

That we urge the appointment on the different commissions of men and women of recognized ability, disinterested devotion to the public interest, and honest advocates of public ownership, and that the different commissions, in addition to reports and recommendations dealing with the subject matter, also recommend the essentials of the legislation, necessary for effective conservation and nationalization.

That we urge upon Congress and the President of the United States the desirability of creating the different commissions with the least possible delay, and that effective laws be enacted at as early a date as practicably possible to nationalize our natural resources and economic monopolies.

WHAT COULD NATIONALIZATION MEAN TO A MINER?[1]

If nationalization is put through, with the workers' share in control, with the safeguarding of the public interest, with the security of the miners—then:

Nationalization means an end of car-pushing.

[1] From Why the Miners' Program?' United Mine Workers of America. District no. 2. 1921.

It means the end of unnecessary accidents.

It means more air pumped into the mines.

It means a wage that will give a good American life.

It means a better house and home.

It means an end of overwork and slack work, or rush seasons and unemployment, of fatigue and then hard times.

It means regular work at short hours through the year.

It means an end of the life that is poor, nasty, brutish and short.

It means the coming of safety, security, health and freedom.

Will the Public Be Benefited? How?

The public will receive their coal regularly at a reasonable price, when coal is nationalized. And not before. Nationalization will cure the scramble for profits, and the mismanagement of mines. The public has always been the silent, patient, ultimate sufferers from private ownership.

In making life better for the workers, we are making it better for the community. The storekeepers, the trades people, the farmers, the commercial travelers, the clerks—these all prosper when the working class can purchase freely. These all suffer when wages are so low that the workers cannot buy. It is a gain for all when the working class raises its level.

NATIONAL OWNERSHIP OF ANTHRACITE COAL MINES [1]

Argument in support of the petition before the Massachusetts and Maine legislatures in favor of the national ownership of the anthracite coal mines.

We support this petition for the following reasons:

1. A practical monopoly exists in the ownership, mining, transportation, and marketing of anthracite coal.

[1] By Henry Demarest Lloyd in Lords of Industry. p. 224-93. Copyright. G. P. Puntnam's Sons. New York. 1910.

2. This monopoly is, as all monopolies always have been, in the words of Gibbon, "greedy, barren, and oppressive."

3. The coal industry has been taken out of the hands of real merchants, or captains of industry, and placed under the control of corporation consolidators and stock exchange manipulators, men who have proved themselves incompetent to manage business either for their stockholders or the public of laborers and consumers.

4. The results of these monopolies have been, and will continue to be, destructive to the prosperity, the liberty, and even the life of the people.

5. No people who care for their safety and their self-respect can submit in government or industry to a power that claims the divine right to make both sides of their contract, its side and the other side.

6. Relief by competition has been tried repeatedly and found impossible.

7. Relief by the enforcement of the laws against combination and freight discrimination has also been tried and found impossible.

8. Failing competition and regulation, ownership by the people is the only agency which the people can use to restore their market rights and all their other rights. If we cannot have freedom by competition, we must have freedom by the commonwealth.

9. Germany, England, Switzerland, New Zealand, Australia, and a multitude of municipalities furnish illustrations of the successful recourse to public monopoly as an escape from the evils of private monopoly.

10. The desired protection of the public can be secured summarily, immediately, successfully, easily, by due process of law and with no violation of public faith or private right.

COAL MONOPOLY [1]

Relief for the people from the coal monopoly has been sought through the Interstate Commerce Commission and has failed. The legal representatives of the people refuse to have recourse to the anti-trust law for reasons indicated in a moment, although Senator Edmunds, one of its authors and as able a constitutional lawyer as we have, has lately repeated his opinion that its provisions are ample and that we need not have a new law but an enforcement of the law we have.

Relief we must have, for relief means life, liberty, and prosperity.

The same human nature is at work now as always. The same everlasting passion for liberty still in the same everlasting conflict. Today the struggle is a step higher than one hundred years before. Then it was as to the right of men as men to a voice in the management of that industry we call government,—dealer in forts, coinage, courts, harbors, postage stamps. Now it is the right of men as men to a voice in any other industry which has become of supreme social importance, for the right of the people to be free from taxation without representation in any business which has so great a power over us that it governs us, to have a voice in any industry so great that those who own it own us, to a vote in any property so great that it is a government, whether it be the control of railroads or the light of the cities, of the supply of the necessaries of life, like coal, oil, salt, steel, or anything else.

The essence of democracy is that the democrat submits to no power of which he is not a constituent part and partner. No non-representative government. No power to which we submit shall be more than the sum total of the powers which have flowed from us to it. No

[1] By Henry Demarest Lloyd. Lords of Industry. p. 282-93. Copyright. G. P. Putnams Sons, New York. 1910.

government can be free, no society can be free, in which any power whatever over its citizens is greater than, or different from, the powers existing in them and voluntarily delegated by them to the center. As much centralization as you please, but always over against it an equal decentralization. Over against empire, home rule. Over against the authority of the flag the consent of the individual. No power over us that does not flow from us either in industry or in government. The power to make a price is the power to tax. We must be represented in the one as well as in the other. If we cannot control the price by our freedom to play competition against competition, then we must control it by some other freedom. If we cannot control it by competition, then by politics in the state-house, if not the market-house—that is, by discussions, elections, laws. We must control it if we will be free.

For the general line on which the remedy must be sought there are plenty of precedents. Not because of abuses, but simply for convenience, the English people took national possession of their telegraphs a generation ago.

Since 1869, when the British government took possession of the telegraph, the number of messages in that country has increased thirteen-fold and the population has increased 30 per cent while in the same time in this country the number has increased eight-fold and the population has increased 100 per cent. In the past decade the population in England has increased 5 per cent and the number of telegrams 28 per cent, while in the United States the population has increased 21 per cent and the number of messages 26 per cent. The number of messages per capita in each country in 1869 was one-fifth of a message, while now the per capita use in England is twice as great as here. (Industrial Commission. volume XIX, page 675.)

The Swiss people at this moment are transferring their railroads to national ownership from private ownership. The abuses which led them to this step are so insignificant in comparison to those which we are considering that the contrast is ludicrous. The roads were

well-managed in private hands, but two incidents occurred which disturbed the unsophisticated Swiss.

A rich merchant of Zurich obtained by purchase the controlling interest in one of the principal lines. In accordance with his undoubted legal right, he turned out the board of directors and replaced them with new men of his own choice. There was no wrecking of the road, no increase of rates, no creation of monopoly by discriminating rebates, only this exhibition of the power of a citizen to control a highway. Then there was a strike in one of the roads. The company would not settle with its men and they fixed the date for going out. A member of the Swiss Cabinet took a special train to the scene of dispute and informed the management that if they interrupted the service for one hour the government would take possession of the road. They settled with their men. These two events had a profound effect upon the public opinion of Switzerland. The people demanded the purchase of the roads. Three of the principal lines have already been acquired and the two others are about to pass from their private owner to that of the people (1903). There is a precedent which applies to the special industry we have under consideration—the coal business.

The people of New Zealand four years ago began to complain of the prices they were forced to pay for coal. Their supply came from their own country and from Australia. The transportation companies there, as here, had become large owners of the coal deposits, and there, as here, were charging extravagant and erratic prices. An investigation was made. The committee reported that the methods of production were not as economical as they might be, and that the poor consumers were charged prices out of proportion to those paid by the large consumers. There was nothing worse than this. In a debate upon the report, Premier Seddon said, the time would not be far distant when the state would

be working its own coal mines, and he did not see why it should not do that as successfully as it at present worked the railways. There was a suspicion of a combination and the Premier's idea grew in favor. After a year of discussion in Parliament and on the platform the law for a national coal mine was passed.

Appropriations have been made and powers delegated to enable the general government to establish state coal mines. These will supply first the needs of the state, as for its railroads, navy, and government buildings, and then the needs of the public. And this political economy of all by all for all puts it into the law that as rapidly as the net receipts increase above 5 per cent the price of coal to the public shall be lowered. Here, as in its railroad service, in the loans of public money to farmers and artisans, and in the subdivision among the landless of great estates resumed for the people, this New Zealand democracy eschews profit-mongering and does business on the plane of a social exchange of service for service at cost.

Our coal capitalists have found it perfectly safe to flout laborers, consumers, dealers, officials, press, clergy, the public generally, and the President of the United States, during these bitter weeks of their manufacture of artificial winter. Individuals and volunteer committees, however distinquished, seeking to make peace, have been rebuffed with the assured conviction that the public had no business with the business of those "to whom God in His infinite wisdom has given control of the propertied interests of the country."

But a very weak imagination is powerful enough to picture what would have been the behavior of the same gentleman had there been such sentiments as the above in the last report of our Secretary of the Treasury, and a section in some Federal law giving similar powers to the national government concerning the public's coal on the public lands, to say nothing of the assumption of private

mines. The coal companies of New Zealand never say, "There is nothing to arbitrate."

The nervousness with which our coal mine owners protest that "no politics" must be brought in reveals their vulnerable heel and their consciousness of it. "Politics" and the use by the people of their irresistible weapon, public cooperation, have made lambs of the coal monopolists on the other side of the globe.

We are in an emergency and it is not safe to wait. Our fuel supply is in the hands of cruel and incompetent men. Like Markle's tenants, we live "at their will and pleasure." With all that the Anthracite Coal Strike Commission can do, and it can do very little since its powers are limited by the submission of the two parties, civil war may relight its fires at any moment. It has been found by Congressional investigation that the same process of consolidation which has at last reached consummation in anthracite is in progress throughout the whole field supply of this country. The same railroads are becoming owners of hard and soft coal fields. Vast plans are afoot for gigantic aggregations of soft-coal interests. These schemes are cropping out at widely scattered points. At Portland, Toledo, Chicago, New York, and Boston, scores of places, indications are coming to the surface that the retailers are being organized according to a common plan for common purposes. This is in startling resemblance to the scheme by which the oil business has been "harmonized." The manipulation of the bituminous supply and the bituminous prices during the recent anthracite famine was inexplicable except on the theory that mighty influences were at work in both, and with the same object.

Bituminous coal was held back from the market by the railroads, although the anthracite famine gave bituminous merchants, if they were merchants, such an opportunity to market their wares as seldom comes to a merchant. We can see coming the most appalling campaign for our con-

quest to which any people have yet been summoned to surrender. It is something infinitely more disastrous than the coal famine or the present coal monopoly. It is something which will work its mischief all through our common life for many years, a fuel trust, including oil, gas, hard and soft coal. It will extend from the mine to the consumer and embrace everything from deposits which cannot be used for generations to the delivery wagons of the retailers. One purpose of permitting the recent strike seems to have been to accustom the public through the strike to scarcity and permanently higher prices for its fuel. The people of this country will never see cheap coal again unless they make it cheap. By the consummation of this scheme hundreds of millions of dollars will be added in stock-exchange values to the fortunes of the devotees of this kind of cooperation, and tens of millions of yearly tribute will be taken from the people for the privilege of warming themselves at their own fires. The loot of the descent of the allied powers on China is a mere bagatelle in comparison.

The prospect is for as absolute a monopoly in fuel as that we already suffer in our oil and steel. A greater calamity than any which could befall, except a monopoly of our food, and that is already under way, as every housekeeper knows.

WHO OWNS THE COAL?[1]

In other industries private ownership has given us men like Rockefeller, Hill, Harriman, Ford, each of whom in varying degree and in spite of justifiable criticism has brought about constructive achievements of social value. One cannot say as much for any coal operator. The anthracite industry is virtually monopolized by the railroads; the bituminous industry is ruinously competitive. The coal operators have made no

[1] From article in Nation. 114 : 514. May 3, 1922.

contribution to efficiency in mining; they have not cut down the terrible risks of an industry which in the last five years has taken toll of over two thousand lives a year; they are prodigally wasting the heritage of posterity; they do not pay their workers an annual wage that approaches the minimum for comfort and decency. So inefficient are they in marketing their product that from April to October, 1921, when the retail consumer was paying about $10 a ton for bituminous coal the operators, according to their own showing, were receiving an average of $2.89 and—they claim—actually losing two cents a ton. Most coal owners are merely absentee landlords who know nothing about the industry from which they take toll and those who are active in it scarcely serve any other function than to assemble workers with whom in many fields prior to unionization, as in West Virginia today, they have waged open civil war. The problem in the coal industry or in the development of any indispensable natural resource is how to make it available on the most economical terms to the people of the earth without exploiting the hand and brain workers who make it available. Private ownership is justifiable only if the legal owners are efficient trustees in this task. The owners of our coal mines emphatically do not meet this test.

NATIONALIZATION OF THE COAL INDUSTRY [1]

Danger of a Coal Trust

The defects of the existing system are so glaring that various schemes have been put forward which have as their object to end the individual ownership of mines without putting public ownership in its place. As long ago as 1893, Sir George Elliott, a prominent South Wales mine-owner, urged the unification of the industry under

[1] From pamphlet by R. A. Tawney. Member of the Coal Industry Commission, 1919 (Great Britain). p. 20-4. The Labour Party, 33 Eccleston Square, London, S. W. 1. 1919.

public supervision. Sir Richard Redmayne, while declining to commit himself to nationalization, pleaded before the coal commission for what he called "collective production." It is understood that the Coal Controller's department had been so gravely impressed with the necessity for some measure of unification, that, even before the appointment of the commission, it had considered the possibility of merging all the existing interests in a single corporation. Sir Arthur Duckham, while expressing himself strongly against nationalization, declared that "the working of over three thousand collieries by more than fifteen hundred separate interests has resulted in heavy losses of coal and inefficient working," recommended the complete expropriation of the mine-owners, and proposed to substitute for the present confusion the amalgamation of the collieries in each district into a single corporation, which, would; (*a*) be governed by a board of seven directors, four to be elected by shareholders, two by miners, and one by managers and undermanagers; (*b*) be guaranteed a dividend of 4 per cent by the state; (*c*) be allowed to pay 6 per cent, after which any further profits must be allocated in the proportion of two-thirds to reduce the price of coal and one-third to dividends.

These proposals for unification are as frank an admission as could be desired that the system which has existed hitherto is intolerable. Nor need it be denied that they would remove some of the wastes incidental to it. But they leave the fundamental problems unsolved, and possess all the dangers inseparable from the creation of a gigantic trust controlling one of the fundamental necessaries of life. On the one hand, the miners, were Sir Arthur Duckham's scheme adopted, would still remain the servants of profit-making employers, whose main concern was dividends, and, though given a minority representation on the boards of directors, would neither participate effectively in the government of the industry, nor be in a position to make the contributions

to improving the service which, if they were partners with the community under a system of public ownership, would be derived from their cooperation. The relation of capitalist employer and hired wage-earner employed for private profit, which is the radical vice of our industrial system, and which in the coal industry has definitely and unmistakably broken down, would remain unaltered.

On the other hand, a long and bitter experience suggests that, however carefully regulated, a system of capitalist trusts is not likely to make its main concern either the provision of an economical supply of coal for the public or the improvement in health, safety, housing and the standard of life which the mine-workers, and the nation on their behalf, have a right to demand. As half a century of economic development shows, once they are called into existence, these leviathans inevitably constitute a new set of vested interests which control the community more effectively than the community can control them, and which meet every attempt to clip their claws by passive obstruction or by some secret rearrangement which cannot easily be exposed or prevented. How real that danger is has been proved only too clearly by the record of the government with regard to the coal industry itself. It has been driven from point to point by capitalist interests. It allowed them to make enormous profits during the war. At their dictation it quite unnecessarily (as is now admitted) raised the price of coal in June, 1918, and again in August, 1919. Most significant of all, in professing to adopt a scheme modelled upon that of Sir Arthur Duckham, it has maintained a calculated silence as to the limitation of dividends to a maximum of 6 per cent, which was Sir Arthur Duckham's proposal for the protection of the consumer. These are not encouraging precedents. The truth is that to create an immense monopoly and then to try by external supervision to prevent it from exploiting the public is like buying a tiger as a pet for the little ones. As the government's

own committee on trusts has shown, the consumer is plundered enough by combinations as it is. This is not the moment to add to their number by endowing a gigantic corporation, or group of corporations, with the exclusive control of the most precious and indispensable of national resources. The miners are to be congratulated on having refused the invitation of the Prime Minister to take part in what would inevitably become a conspiracy to exploit the public.

Advantages of Public Ownership

Nationalization has more than one meaning, and is compatible with several different types of organization. The principles which should determine the administration of the coal industry are discussed below. Provided, however, that the obvious pitfalls of bureaucracy and overcentralization, which are as familiar to the advocates of nationalization as to its critics, are avoided, the advantages of public ownership are immense. It will benefit the consumer by making possible the elimination of the various sources of waste, the cost of which is at present reflected in the price of coal. It will benefit the mine-worker by removing the downward pressure of capitalism on his standard of life, by making room for considerations of social well-being which are at present subordinated to the pursuit of dividends, and by securing him an effective voice in the policy and organization of the industry. Nor is the least of its advantages that by making the most fundamental of all industries a public service carried on in partnership between the state and the workers, it will call into operation motives of public spirit and professional zeal which are at present stifled by the subordination of the industry to the pursuit of private gain, and which will raise the whole tone and quality of our industrial civilization.

How costly to the consumer, and how tyrannical to the mine-worker the conduct of the coal industry has been in the past, has been shown in the short analysis

of it given in the preceding pages. As far as the consumer is concerned, the most obvious advantages of public ownership, accompanied by a democratic system of administration, are summarized below. It should be observed that they do not repose upon the assumption that any preternatural degree of intelligence will be displayed by the personnel of a nationalized system—an assumption which, since such a system will naturally employ many, if not most, of the existing officials, would clearly be illegitimate. They are of a kind which a public and representative body, of its very nature, possesses, and which private ownership (whatever its other merits) cannot pretend to cultivate. Such a body can handle the problem of organizing production and distribution as a whole, instead of piece-meal. It can wait, and need not snatch at immediate profit at the cost of prejudicing the future of the industry. It can enlist on its side motives to which the private profit-maker (if he is aware of their existence) cannot appeal. It can put the welfare of human beings, worker and consumer, first. Thus:

1. Owing to the differences in the character and accessibility of the coal worked by different collieries, a "price that is a fortune for one colliery is bankruptcy for another." The financial unification of the industry in public hands will secure that the surplus gains of the more favourably situated mines accrue, not to functionless shareholders, but to the community.

2. As long as the mines are worked with a single eye to private profit, the mineral resources of the nation tend to be exploited recklessly, through the "creaming" of pits, and the failure to work the less profitable seams. Under public ownership, mines will be worked with a due regard to the conservation of what is the most important source of mineral wealth. "Under a system of collective production," stated Sir Richard Redmayne, "artificial factors which impede mining would be removed. Owing to the extinction of the competition prevalent in normal times between rival owners, coal, good and

inferior could be worked together, instead of bringing up only that which is necessary to allow of one owner competing with another."

3. At present, much coal is lost in barriers between different properties, and, because of the failure of owners to cooperate in drainage schemes, valuable tracts of coal are liable to be drowned out. Public ownership will save part (though not all) of the barriers now necessary, and will make possible the establishment of central pumping stations "at the most advantageous points, with considerable resultant saving in cost."

4. Once the different mines in a district form part of a single system, they will reap the economies arising from common buying of materials and common selling of the product. "The material annually consumed by the collieries of the United Kingdom is enormous. It must be apparent that some fifteen hundred concerns purchasing materials independently cannot do so as effectively or cheaply as if they were one concern."

5. Administrative and managerial expenses will be diminished, as they are normally diminished when businesses combine which formerly competed, and the larger unit will make possible the more economical use of technical knowledge and ability. "Economy of administration in this respect is obvious. The number of directors would be greatly reduced, as also the number of managing directors, consulting engineers, and general managers. The middleman would largely disappear."

6. Knowledge will be pooled, and an improvement introduced into one mine will be available for the service as a whole. "Assuming that each station on a railway system was left free to evolve its own destiny, without control from a central authority or headquarters, we should get something akin to the system of separate units which obtains in coal-mining."

7. Instead of the financial position of each colliery being concealed as far as possible from its competitors

and from the mine-workers, there will be complete publicity with regard to the cost both of getting coal in each pit and in each district, and of distributing it to the consumer. Hence the public for the first time will know exactly what items enter into the price charged it for coal, and will be able to judge whether that price is reasonable or not. In the words of Mr. Justice Sankey, "The other industries and the consumers generally will have a voice in deciding the amount of coal to be produced and the price at which it is sold, *which they have not had in the past.*" The mine-workers will know exactly what profits are being made, and the suspicions inseparable from secrecy will thus be removed. The bodies administering the industry will be able to compare the costs of getting and distributing coal in different pits and districts, and will thus be in a position to insist on the abolition of uneconomical methods and on the levelling up of the system of production and distribution throughout the industry.

8. The equipment of the more backward mines, which at present, standing by themselves, find it difficult to raise the capital needed for the introduction of improvements, will be brought to the level of the rest. "The present system of numerous separate ownerships militates against it (i.e. improvement). Under a system of collective production . . . capital would be available to allow of the smaller concerns adopting labour-saving appliances to a greater extent than at present. This is one of the directions in which the present system of numerous small entities (as against a combination of interests) is wasteful and extravagant."

9. The waste arising from the separate ownership of trucks would come to an end. "The present system of private ownership of wagons is obviously wasteful. There are some seven hundred thousand privately-owned railway wagons hampering the railway companies by reason of special shunting and marshalling of the railway

stock. The system also has the effect of increasing colliery costs owning to the amount of shunting they have to do."

10. The super-power stations which are to be erected, and the public railway service, which, it is to presumed, will be established shortly, will necessarily purchase immense quantities of coal. The public ownership of coal mines is the only certain way of protecting these services, and through them the consumer, against exploitation by "rings" of coal producers.

11. The middlemen who at present intervene between the producer of coal and the consumer, to the number of three or even of four, will be replaced by a system under which coal for household purposes will be distributed in each area by the local authorities. Its price will be fixed at a level sufficient to cover costs, and will not be raised, as now, whenever a "cold snap" makes it possible to squeeze the market. The saving to the consumer of coal which such an organization would make possible has been already established by the experience of cooperative societies.

12. If the principles suggested below are observed, it is reasonable to hope that the coal supply of the country will not be interrupted by the friction between workers and employers which, whether it flares up into formal disputes or not, is at all times a grave economic loss, and that the community as a whole will gain in so far as the change in the status of the mine-worker causes their experience and professional pride to be enlisted in the improvement of the industry.

These are all advantages which will accrue, in the first instance, to the consumer. It is evident, indeed, that in so far as the more efficient and economical conduct of the industry enables the cost of supplying coal to be reduced, a fund is created in which the mine-worker may be expected to share. It is not, however, so much in the direct additions which it would make to his income, as in the cessation of petty tyrannies, the increase in the

provision for health and safety, and in the greater freedom and security, offered by his new status as a partner with the state in the conduct of the industry that the benefits of nationalization to the mine-worker are to be found. Thus:

1. Given public ownership and the system of administration which is outlined below, the worker will be protected against the various devices by which a sharp or unscrupulous management endeavours to cut down his earnings. Attention will be concentrated on reducing the real cost of production by improvements in organization, and by the elimination of waste, not, as often now, on reducing prices for cutting coal to a point at which only the strongest worker, by almost inhuman toil, can keep off the minimum, and on increasing profits at the expense of wages, while leaving the cost of production unaltered.

2. Provisions for health and safety will no longer be enforced from outside upon managers whose primary concern, however personally humane and careful they may desire to be, is necessarily to make the business as profitable as possible from the point of view of the shareholders. The diminution of the dangers incidental to mining will be a primary duty of the authorities responsible for administering a national system. Given continuous concentration on that problem, without the conflict of interests which the pursuit of profit inevitably involves, it is reasonable to expect that the nation will obtain its coal without killing between three and four miners every day, or injuring one hundred and sixty thousand every year.

3. The arduousness of the mine-workers' toil can be considerably reduced by the introduction, wherever possible, of the latest machinery and equipment, such as already exists in the most up-to-date mines, but which, according to the evidence laid before the commission, is woefully lacking in the remainder. Every practical man knows that the strain of the miner's work can be enor-

mously diminished, provided that a serious effort is made with that object. Men could be conveyed near to their working places, for example, far more generally than is the case at present. It is a common saying that the fatigue of walking to and from the working place, often for two miles or more up and down steep inclines, is more exhausting than work at the face itself. In some districts it is paid for; in others, not. And, of course, the working time lost means a lower output of coal. Intelligent management would face the immediate cost of providing means of conveyance, wherever practicable. Again, the general introduction of hand electric lamps (in addition, of course, to the ordinary safety lamp) would relieve the strain on the eyes, which is one cause of nystagmus, and would also increase safety by facilitating a more thorough examination of the roof than is often possible at present.

4. The irregularity of employment, which at present results in the average working year of miners being less than two hundred and eighty days, may be expected to be replaced by almost complete continuity, when the mines, instead of competing with each other for orders, are operated as units in a single system.

5. The social conditions of the mining industry, in particular the appalling scandal of miners' houses, the failure to provide pithead baths, the absence of any system of holidays on full wages or of pensions, are not likely to be tolerated when the mines have passed into public ownership.

Most important of all, the mine workers themselves will be in a position of responsibility and power which will secure, not only that their practical experience is placed at the service of the community, but that the industry shall be conducted with full consideration for the human interests of all concerned in it. Through the machinery of pit committees, district councils, and national mining council, they will be able to suggest measures for improving both the quality of the service

and the conditions under which the mining population works and lives. They will no longer be "hands," employed for the advantage of a profit-making company, but partners in a communal enterprise. It is impossible to exaggerate the significance of that change of status. It is the difference between freedom and something like serfdom.

WHY PUBLIC OPINION SWUNG[1]

In 1913, the eleven hundred thousand miners received £82 a year (about $400). With the cost of living increased by 115 per cent, their wages have gone up to £169 a year (about $825), which was an increase of 106 per cent. To this £169 a year is now to be added about £27 a year, making £196 a year (about $950). A seven-hour day will mean that the men are under-ground, taking the average, 7 hours and 39 minutes. Small wonder that the representative business men of the commission have ordered these improvements; $950 is not extravagant pay for the father of a family. Seven and a half hours of some of the hardest and most dangerous work in the world is enough. What was the evidence that swung public opinion against "private enterprise" in mining?

1. Royalties paid to the owners of the soil (who do not own the mines or work them) are $30,000,000 a year. A pure "property" tax at the expense of the miner and the consuming public. Steadily it was emphasized that on every ton of coal, on every article of manufacture, "there was," in Mr. Webb's words "a tribute due to property, exclusive of any service rendered to the article."

2. Profits for 1916 were $185,000,000.

3. In June, 1918, 2 shillings sixpence a ton added to the price of coal to lessen the loss to weaker collieries, thus enhancing the profits of the prosperous collieries;

[1] From article The British Coal Commission; hearings and the report, by Arthur Gleason. Survey. 42 : 337-9. May 31, 1919.

an instance of "economic rent." The Coal Controller tacked on this figure at a guess. Mr. Arthur Lowes Dickinson, chartered accountant, government witness, in answer to Mr. Webb said, "If profits had been pooled it would not have been necessary to put prices up."

4. The need for probing of wagons.

5. The need for the sinking of new shafts and improvement of old ones.

6. A divisional inspector of mines said he "had been down into pits where the roads were very low and inconvenient, and he had told the managers they ought to have bigger roads and bigger tubs." But they usually said they "could not do it and make a profit."

When asked if this implied that if they got greater productivity, and the nation got more coal, they would get less profit, the witness replied it was so.

Sir Richard Redmayne, chief inspector of mines, the head of the Production Department of the Control of Coal Mines, technical adviser to the Controller of Coal Mines and chairman of the Imperial Mineral Resources Bureau, said:

> That the present system of individual ownership of colleries is extravagant and wasteful, whether viewed from the point of view of the coal-mine industry as a whole or from the national point of view, is, I think, generally accepted. This is a somewhat daring statement, but I am prepared to stand by it. It conduces to cut-throat competition between owners selling coal, and is preventive of the purchase of materials necessary for the carrying on of the separate enterprises at prices favorable to the coal-owners. Advantages which would result from collective production would be (a) enhanced production; (b) diminished cost of production; (c) prevention of waste.

Collective Production

These advantages, he explained, would be due to the following factors:

> (1) Prevention of competition, leading to better selling prices for exported coal being secured.
> (2) Control of freight.
> (3) Economy of administration by curtailment of managerial expenses.

(4) Provision of capital, allowing of quicker and more expensive development of backward mines.

(5) More advantageous purchase of materials.

(6) Reduction of colliery consumption. This is very high in some mines. The average for the United Kingdom is 6 per cent, and the consumption altogether about sixteen million tons.

(7) More harmonious relations between the workmen and the operators, due to steadier work and adequate remuneration of workmen.

(8) Obliteration to a great extent of vested interest and of middlemen. From the collective production of essentials it is a very small step to collective distribution. This would hit hard at the middleman, who is a serious item in the cost to the consumer.

(9) Unification of the best knowledge and skill, leading to greater interchange of ideas and comparison of methods. If good results were obtained at one mine and bad in another, these results would be open for all to benefit therefrom.

He added that he had approached the whole question from these points of view—the greatest possible production of coal at the least possible cost with the greatest possible safety, the health of the workmen with the highest standard of life, and an increasing standard of life. It was a great mistake to suppose that a lower standard of efficiency followed a higher standard of comfort.

Mr. Smillie remarked that a number of mine-owners had assisted the government during the war in various ways. He asked Sir Richard if he believed they had given as honest service to the government as they gave to their own business.

The witness answered yes.

May I take it that if the nation take over the mines we might expect the same gentlemen to give the same service to the nation? I can only express the pious hope that they would.

In answer to Frank Hodges (representing the miners), the witness said there were three alternatives to the present state of affairs. One was nationalization; another was ownership by the owners in combination; the third was ownership by owners and workmen. He dared say there was a fourth, which was known as syndi-

calism, and which meant ownership of the mines by the miners.

Mr. Smillie, in a series of questions, submitted that thousands of lives had been sacrificed before mine-owners had been compelled to introduce life-saving machinery, such as winding controllers and apparatus for changing air currents.

7. Accidents, John Robertson, chairman of the Scottish Union of Mine Workers, said, killed fifty-five thousand persons in the mines in fifty years. In the last twenty years, one hundred and sixty thousand persons were injured each year, or a total of three and one-quarter millions. One in every seven is injured each year. "Mining is more deadly than war. The miner is always on active service. He is always in the trenches."

8. Mr. Robertson gave as an instance of housing Hamilton, with a population of thirty-eight thousand, of whom twenty-seven thousand lived in one- or two-room houses. Some of the miners live in some of the worst houses in Britain. With sincere feeling, Mr. Arthur Balfour said, "If the situation is as you describe, it must be put right."

9. Better conditions increase production. In Durham there is the greatest profit in Great Britain, and in Durham there is a shorter working day than the present act of the miners proposes. It was alleged that brains and machinery could double the production. Low wages and long hours lessen production.

10. The life of a miner. Vernon Hartshorn said:

> The miner never gets more than two hours a day of sun. Every movement he makes in his pit clothes leaves its mark. Twelve years I worked so. I would come home so tired that I lay down on the hearth-stone in front of the fire for hours. In the early morning, to be hauled out of bed was like going to the gallows. One man in seven is injured every year. I have seen six men go out from a little home in the morning, and the six, father, son-in-law and four sons, brought back charred corpses at evening. Men are blown to pieces. The miner can never ask for an armistice. The miners will no longer consent to be regarded as hands, to turn our profits for idle shareholders. They

wish to be useful public servants. State ownership is inevitable. Unless the demand for state ownership is granted, syndicalism or bolshevism will take the place. If this is not conceded at this time, a movement will be under way that will take another form than nationalization. If an increase in the standard of living cannot be obtained, the miners say, "We'll change jobs."

In rebuttal, the coal-owners submitted:

1. There is a desire to ruin coal-owners, and so create nationalization.
2. Machinery exists for dealing with questions of dispute.
3. Best management in the world in British coal mines.
4. Success spread by private enterprise.
5. Where will capital come from?
6. Sterilize all the knowledge of the directors of collieries.
7. Would give miners preponderant representation. Mr. Evan Williams said, "Do you think any government would dare appoint any minister of mines without consulting Mr. Smillie?"
8. The gigantic scale of collective bargaining was given as one of the causes of unrest.
9. Kill the export trade.
10. Put up the price of iron and steel.
11. The good manager will say, "Why should I worry to keep my neighbor going?"
12. No poverty among the miners.
13. Conditions for them are being improved.

If this rebuttal seems meager to the reader, it is not so slim as the case of the coal-owners appeared to a visitor at the inquiry. The Daily News in a special article has expressed it thus:

> No one who attends its proceedings can help coming away with the impression that it is the mine-owners, and not the miners, whose case is on trial. So skilfully have Mr. Smillie and his colleagues managed the proceedings that they have become virtually a labor tribunal, before which the coal-owners and magnates from other industries have to plead their cause. More than once, especially when Mr. Smillie or Mr. Webb has let

himself go, I have been reminded of reports of the proceedings of revolutionary tribunals in France or in Russia. No wonder that one employer, at the end of a long cross-examination, remarked, "I am not at all happy."

This atmosphere arises largely from the frankly challenging attitude which the miners' representatives are taking toward the existing industrial system as a whole—an attitude which is increasingly prevalent throughout the world of labor. Mr. Smillie confiscates mining royalties with a wave of the hand; they are, he says, "stolen property." To arguments about the danger to British trade of granting higher wages and shorter hours, the miners reply that the first necessity is that a reasonable standard of life and leisure should be secured to the miner. In short, if the present industrial system will not bear higher wages and shorter hours, they suggest, not low wages and long hours, but a change in the industrial system. This attitude clearly puzzles some of the employers' witnesses. They do not want, they exclaim, to keep down wages, provided only that they can be assured that trade will not suffer. They cannot understand Mr. Smillie when he claims that the workers' demand for a reasonable standard of life takes precedence of the "rights of property." "But that is property," said one witness representing the iron and steel trades—and he said it with such an air of puzzled finally that there was nothing more to be said.

MINERS' AMERICAN PLAN[1]

Pressure by the miners forced action by President Harding, and led to the creation of the National Fact-finding Coal Commission. But the membership of that commission is far from the outline suggested by the miners. Such a commission should contain miners among its representatives. If the commission is in earnest, we suggest three main lines of investigation:

1. The present misgovernment of the industry;
2. The need of facts about coal;
3. A drastic plan of reorganization.

The misgovernment is registered by the appalling waste of coal, the dreary and chronic under-employment of man-power, and the unnecessary accidents and death-roll of miners.

The need of facts is illustrated by the journey of a

[1] By John Brophy. Labor Age. 11 : 4-5. November, 1922.

coal-car from mine-head to market, with the pyramiding of prices at each junction.

United Labor's Task

The demand for reorganization is recognized by intelligent executives who range from the President of the Erie Railroad to the Secretary of Commerce. Whether that reorganization shall take the form of one more great trust, like the United States Steel Corporation, or a litter of baby trusts, or a democratic organism, rests wholly on the alertness of the united labor forces of America. If labor speaks with power at Washington, it can demand a thorough-going exposure of the facts, leading to the treatment of coal as a public utility.

We miners have by national resolution demanded, and by committee specified, the public ownership and the democratic management which alone will bring order to the shattered industry. Our plan is simple and balanced. It provides the safeguards and checks of a constitutional government. It is in the main current of the American tradition. The sincerity of the National Fact-finding Coal Commission will be tested by the care with which it considers this plan. If the commission disregards the one fundamental, detailed and comprehensive remedy now before the American public, it will stimulate the miners to convinced and determined economic and political action. It is not the miners nor the miners' plan which are on trial, but the coal industry, as conducted by competitive private enterprise. The indictment has been formulated by the technicians, and ratified by the public. The trial is now proceeding.

The Miners' Plan

What the miners demand is the purchase of the coal industry and of coal by the people of the United States. For the proper organization of the industry, we advocate the Miners' American plan. This includes:

1. A Secretary of Mines in the Cabinet.

2. A Federal Commission of Mines, part of whose membership shall be appointed directly by large technical and industrial bodies. This is a public body, representing the consumers.

3. The plan assigns policy to this commission, and sharply separates policy-making from administration.

4. For administration, it purposes the establishment of national, regional and local administrative councils. Their membership includes technicians, miners and the public.

5. The plan calls for a Wage Scale Committee, made up jointly of the directors of the industry and of the miners. Collective bargaining is preserved and enhanced. The right to strike is scrupulously maintained and affirmed. Any plan of nationalization that pussy-foots or soft-pedals collective bargaining is the beginning of slavery for the mining community.

This American plan demands the full democratic program. It calls for a union that covers the coal fields. It contemplates no such equivocal situation as that which leaves Logan coal to be mined under a feudal system, administered by modern gun-men. The miners will welcome nationalization with a 100 per cent union.

Labor Party Twin Brother of Nationalization

Again, this plan requires the solidarity of labor at the polls. No public measure is safe in the atmosphere of Washington, unless labor congressmen watch its workings. No Federal commission will win the respect of the people, until its membership is purged of hack politicians and trust magnates in favor of public-spirited citizens. In short, a strong political labor party is the twin-brother of a democratic nationalization.

"The challenge of this American plan of the miners will be met by a series of substitute schemes. The organization of the United Mine Workers of America will be attacked by such insidious proposals as that of district

unions or even of local committees, patterned on the Rockefeller plan.

A fundamental reorganization of coal will be countered by the proposal of a gradual trustification of the industry—a quiet and growing understanding among the operators, to limit development and to facilitate marketing. The only victims of such large-scale cheming will be the general public and the miners. Once again the operators will be saved from the wreck.

We are hopeful that the public is now sensitive to these devices of a discredited regime. But even if the public is still inert, the miners will push their plan. The movement for nationalization grows in momentum. Public ownership of the mines, with democratic management, is now inevitable.

MINERS' PROGRAM [1]

The happiness of multitudes of common people rests on thinking out the problems of human relationship under the strain of industry. It is no revelation from heaven that is needed. It is the hammering out of some simple devices in administration. Man is an animal that organizes painfully and poorly. He grows irritable in large-scale industry. But as long as he elects to try for a thing called civilization—to come in out of the wet and eat cooked food—he must push on with his unnatural experiment and not lie down in the midst of the muddle. What are needed are some plain rules of the road.

The coal industry has been so disorganized and mismanaged that the situation in recent years has approached what big business men and stand-pat senators describe as a "catastrophe." Intelligent men, with the welfare of the industry at heart, agree that the "game is up"—the old game of speculative profits, over-production, shortages, sky-high prices, unemployment, gunmen, spies, the

[1] By John Brophy, president District no. 2, United Mine Workers of America. Survey. 47 : 1026-9. March 25, 1922.

murder of miners, a sullen, desperate public. Unless unification and order enter the industry, there will be a blow-up somewhere, followed by drastic, angry, and frenzied legislation. The American Kingdom of Coal is today in as chaotic and explosive a condition as the states of Europe. No single constructive suggestion has come from the operators. No large leading idea has come from the public. The public is feeling intensely, but is not yet thinking wisely.

The operators have a fresh explanation for the annual crisis as often as it rolls around. One year it is car shortage, another year, high wages, then the war, then government interference. Of thought out plan and remedy they have offered none.

The only large-scale proposal has come from the United Mine Workers of America in their demand for nationalization. It is the only proposal that grapples with slack work for the miners, high prices and irregular supply for the consumers. It is now the job of the miners to decide what kind of nationalization they want. There are only three plans possible for control and administration. All other plans are minor variations on those three. There are only three plans possible, because, after the owners are bought out, only three interests are concerned —the public, the miners and the technical and managerial group. The plans differ in the proportion of power they give to each of the three interests.

Any plan of unification to be acceptable to a free people must fulfill several demands. It must not only give a good American life to the worker in the sense of wages, hours, safety, health, and all other living conditions; it must also satisfy his demand for a voice in management, for a share in the actual administration of the industry. The American worker has no use for the thing called state socialism. To have a group of politicians at Washington manage coal would be as distasteful to the miner as it would be to the long-suffering public.

Any plan of nationalization must give a larger area

of control inside the industry to all the workers. Against great odds and powerful opposition the workers have won a measure of control, certain negative functions of management. Their method has been collective bargaining, and their instrument has been the union. The workers have won at least a measure of control over the rate of pay; the length of the working day; the details of the daily life as these details are manipulated by the employer's will, inside the mine and in leisure hours; the qualifications of the worker to be hired; the manner and tone of the manager; the right to inspect the conditions of the mine and, through the check-weighman, to inspect the amount of work done. These are real gains in personal freedom and economic status. They have been largely won by the union. The proof is that these rights are not granted in a non-union field.

But these gains are not enough for a worked in a democratically managed industry. He wishes the right to make suggestions on technical improvements, on car-pushing, on slack work, on output, and the right to take part in carrying them out. There will be no complete cooperation until his suggestions are welcomed and weighed. His good-will and intelligence should be encouraged. They must be incorporated in any successful scheme of administration. The working miner must have a real part in the government of coal. Democratic management is what the worker wants. By democratic management he means that coal shall be run by the people who mine it, who apply their scientific knowledge to its problems, who transport it, who sell it, who use it. If coal were run by a bureau at Washington, the miner would feel as far away from being represented in the industry as he feels today under private owenrship. Democratic management must be the blood and bones of a plan of nationalization for the mines.

But any plan of nationalization must also include ownership by the public. Ownership of the mines by the miners would be as unjust and as disastrous as ownership

by the coal operators has proved itself to be. The public must give the final decision on the large issues of the power of decision. So the public must own the mines.

Any plan of nationalization must include the separation of control from administration. The decision of policy is one thing. The job of administration is quite a different thing. To give control to the community as a whole, to safeguard the future as well as the present, to practice the American policy of conservation equally with that of business initiative—all this is in the job of control. Control means to know what is actually being done, as well as to order the thing to be done. Control means statistics of output, requirements, stocks; it means tests, inspections, research, publicity; it means the collection of all the necessary new and now unknown facts about the industry. Under public ownership and democratic administration, the coal industry will find out how much coal the people want, how much of a supply is already in stock, what is the cost of mining coal, how much pay a miner gets, and what the correct price is for a ton of coal. These are simple, easy, fundamental and essential facts in running an industry. But not one of these elementary facts is known today. A permanent fact-finding agency or bureau of statistics will be one of the instruments of control. Control means a permanent Federal inter-state commission of mines, and the eyes of the commission will be a bureau of statistics, with uniform accounting and a research group. At the head is the secretary of mines, a cabinet member.

The job of administration is to *do*. Administration means a national mining council. This council may be made up of three kinds of members. One group will be the administrative heads of the industry—financial, technical, managerial. One group will be the miners. The third group will represent the coal consumers, the consumers in other allied industries, and the community. The administrative representatives of this threefold national mining council may be appointed by the permanent

Federal commission of mines. The miners' representatives may be appointed by the United Mine Workers of America. The public representatives may be appointed by the President.

There will be regional councils for the various large coal fields, such as the central competitive and the tidewater districts, the anthracite, the southwest, and so forth. These district councils will be made up on the same threefold lines of local executives, miners and consumers.

In the mine or group of mines, there will be mine committees.

The power of the purse will rest with the permanent Federal commission of mines. The national mining council will present to the commission its budget—receipts, expenses, salaries, wages, costs, development of new coal fields, prices on coal.

Any plan of nationalization must include the safeguarding of the union, and collective bargaining. The prime cause of labor disputes is removed by nationalization in the elimination of the profit motive. Nevertheless, such questions as the division of the annual product and rates of pay for the various grades of work, and the conditions of the working place will always remain. So it will be necessary to provide a special and separate machinery for collective bargaining. This machinery will be the same joint conference between miners and directors of the industry as has always existed in union fields. Without this the workers would be almost as well off under the old system. The miners will be nominated by the United Mine Workers of America.

In other words, the United Mine Workers of America under nationalization, will not only participate in administration, but must in addition maintain its own life and integrity as "an independent organization of initiative and defence."

Any plan of nationalization must arrange for the determination of price, quality and quantity of output by

the whole community and not by the group of workers. This means that the Federal commission of mines and the secretary of mines will have the final say on these matters. This will be the public safeguard.

As a basis for comparison and criticism of American plans there is a series of foreign plans for the better organization of the mining industry. In one extreme plan, the Welsh miners outline a method of administration which gives them what amounts to 100 per cent control. In another plan—that of the Miners' Federation of Great Britain—the miners hold half control and the technical and managerial experts and the public hold the other half. The Sankey plan is a three-part division of power. So is the plan of the French General Federation of Trade Unions.

So far as the government of coal is concerned, the British coal owner had been more advanced in his economic concessions than the American miner had been in his demands. The proof is this: Baron Gainford, with the authority of the Mining Association of Great Britain, proposed a plan for profit-sharing and for a permanent fact-finding agency, on which the miners' union should have equal representation with the coal owners. So slight has been the pressure brought by American miners that until recently they have had no plan so definite, so radical, as the scheme of the coal operators of Britain.

But outlined above is the suggestion of our American miners' plan for nationalization. It is given, not as a final plan, but as something around which the miners may build their own program.

PUBLIC OWNERSHIP HERE AND ABROAD[1]

What have been the economic, social and political results of this tendency toward public ownership in the United States and Canada? What possibilities does it hold out for the future?

[1] From pamphlet by Harry W. Laidler. 31p. League for Industrial Democracy. New York. 1923.

The Fabian Research Department, in its study of pre-war public ownership, attempted to answer the first, and, to some extent, the second of these questions. Their members arrived at the following interesting conclusions:

Character of Service in Public Industries

1. Public ownership has "shown itself to be an effective alternative to capitalism, by successfully conducting, in every civilized country, an extensive, and constantly widening range of production, distribution and exchange."

While there is scarcely a craft or service that is not somewhere carried on by one or more local or Federal governments,

> this state and municipal administration has been most highly developed, and has proved most strikingly successful in certain branches—namely, most forms of communication and transport; land improvement; sanitation and the public health service; the organization of education and recreation; the extraction of coal and other minerals; banking and insurance in nearly all its branches; the manufacture and distribution of certain special commodities on a large scale, and the construction and preparation of articles required in the various branches of the public service itself.

On the other hand, the consumers' cooperative movement—which conducts about one-hundredth of the business performed by public enterprises—has thus far "undertaken mainly the production and distribution of the ordinary household supplies," as distinguished from such general services as transportation and communication, and has competed in but few instances with state industries. The inference seems to be that some such division of functions as at present exists will continue in the future.

Advantages of Public Ownership

2. State and municipal ownership, continues the Fabian Department, offers a number of striking advantages over private capitalism:

a. It makes it possible to eliminate the wastes of

competition without subjecting the community to the tyranny of the private monopolist.

b. It leads to the elimination of the profit motive in the conduct of industry and tends to decrease the great inequalities of compensation found in private enterprise.

c. It gives to the community as a whole power to determine the direction in which the nation's productive forces shall be employed, the prices of particular commodities and the conditions under which they shall be sold, as well as the working conditions of the citizen producers.

d. It tends to avoid the dominion of individuals or combinations of individuals over human life in the conduct of industry.

It must be admitted, however, that these advantages have not been shown in all governmental endeavors, their complete fulfillment depending on the character of the people and the nature of the governmental machinery.

Government as a Housekeeper

3. The development of these economic and social functions has tended to change the spirit of the government, to lead it progressively to discard the authoritarian conception of dominion and to adopt the more modern conception of national housekeeping. On the other hand, governments have failed adequately to adapt their structure to the new economic functions which they have been steadily assuming. In particular they have devised no means whereby they can secure a continuous expression of the general will of the community, of the consumers of particular commodities and services or of the different groups of producers.

Consumers Profit

4. Despite these drawbacks, consumers have fared better under public ownership than under private capitalism. The government products

are more certainly reliable in quality, more certainly continuous in supply, and, on the whole (though this naturally varies from

trade to trade), more economical in cost and cheaper in price than those supplied by capitalism; whilst the gain in being sure that there will be neither adulteration nor short weight, neither cheating nor taking advantage of the necessities of the more ignorant or weaker buyers, or of periods of scarcity, is, in some departments, beyond all computation.

Effect on Producers

5. The condition of the workers in public enterprises, the Fabians maintain, is not satisfactory. There is, it must be said, a very decided difference in the treatment accorded by the government to its brain workers and clerical workers, on the one hand, and the hand workers on the other. In the best government departments brain workers are selected as a result of open competitive examinations, not as a result of family influence. The staff is recruited with a view to the requirements of the service. The positions of these workers are secure and permanent. The worker obtains an income on a graduated scale, and a proportionate pension on retirement. His motive for service is his desire to excel in his work, rather than the accumulation of a fortune. A demonstration that the railways, mines, factories, post offices—like the hospitals, medical staffs, etc.—"can be honestly, efficiently and economically run by permanent staffs organized on these principles, is a contribution of the highest importance toward the constitution of the future state."

It is an unfortunate fact, on the other hand, that this condition does not pertain throughout the public service, and that conditions for the manual workers are little better than in private concerns. Their selection is generally left to chance. They have little or no security or guaranty of permanence. Their pay usually depends not on the standards of the living wage, but on competitive market conditions. They are but rarely given any pensions, while their promotion to higher posts is of rare occurrence. Moreover, governments have thus far, on the whole, shown a distinct unwillingness to recognize the right of combination among the unskilled workers.

However favorable the conditions of service may be, the producer employed in municipal and Federal service—as in capitalist service—has but little chance to direct his own activities and often feels himself unable to express his personality in his work. It has thus far been a shortcoming of state and municipal service, as of large scale capitalist production, that so little has been done "in the way of developing a new social structure by which each grade and section of the producers might not only have the joy of professional comradeship, but might also exercise its appropriate share in the administration so as to give to the humblest employee both some opportunity of self expression in his service and some sense of active cooperation in a self-imposed task. . . It is in this direction that the state and municipal organization of industry leaves most to be desired." [1]

Does Not Mean Centralization

6. The increase of government administration has been at least as great in the work of municipalities as in that of state departments.

There is, accordingly, so far as government enterprise is concerned, no indication of the coming of a time when every person would find himself dependent on one monopolist employer, or necessarily subject to one uniform regime of law and order; that, on the contrary, there is, in practice, the rapid growth of autonomous municipal enterprises, in every country a vast multiplication of separate employers, in contrast with the rapidly growing supremacy in capitalist enterprises of the colossal national trust or combine; that in most countries abandoned to capitalism the number of employers tends to diminish, whereas in most services undertaken by the government there is no such tendency.

Finally, the Fabians declare, if no more were accomplished during the next generation than in bringing under complete public control those industries now administered by the government in one or more countries, an actual

[1] Since the war, as has been indicated, the development of workers' councils of various kinds abroad and the increased strength of labor in a number of countries on the economic and political fields have tended somewhat to change this situation.

majority of the adult population would be brought into public employment.

A Fabian Summary

A summary of the Fabians' conclusions would thus read substantially as follows:

Public ownership and operation prior to the war was steadily gaining in extent. It worked. Despite certain defects not yet overcome, it showed on the whole definite advantages over private control. It tended toward a more democratic form of government. It tended to reduce waste. It showed that industry could be conducted without the profit incentive. It produced on the whole cheaper and more reliable goods. It improved the conditions of the brain worker.

On the other hand, it failed to adjust governmental machinery as effectively as may be to economic purposes. It failed to provide adequate representation to the producer, or for continuous expression on the part of the public or the special consumer. Often it was used to give increased power to reactionary and imperialistic ruling groups. It was, however, developing a machinery that could be used with telling effect for the development of a more democratic social order, when once labor obtained control of the various governments.

PUBLIC OWNERSHIP IN THE PROGRAM OF THE LABOR PARTY[1]

I have been asked to say something about the state labor party of Illinois. I might begin by saying that the party has stated in its platform that a complete revision of the state constitution is desired. I read from the platform as follows:

[1] From address of Duncan McDonald, president Illinois State Federation of Labor. Public Ownership Conference. Proceedings. 1919. p. 256-60. Chicago.

"Complete revision of the state constitution to reclaim it for the people so that instead of it being, as at present, the fortress of reactionaries and the backbone of the big business organization that grips the state, it will become the bulwark of the workers, built upon the theory of guaranteeing human rights instead of exalting property rights. Now, the workers' measures are unconstitutional. It must be rewritten so that the proposals of crooked business will be unconstitutional. It must be made easy of amendment. It must give the state a new and just revenue system. It must guarantee the initiative, referendum and recall. It must release the bonding power of communities so that public ownership and operation are made possible.

Taxation of inheritances and incomes at a graduated rate progressing with their size, and taxation of land values, but not of improvements.

Public ownership and operation of all public utilities, including grain elevators, warehouses, stockyards, abattoirs, insurance and banks. Development under public ownership of the water power sites of Illinois. Public ownership, preferably Federal, of the mines of Illinois, and in the meantime, state regulation which will prevent wasteful, competitive methods of mining."

I propose to direct my remarks especially to this question, beginning with the very vital question just at this time, with a coal supply on hand for not more than ten days in the country. The present method of mining coal in Illinois, if it was generally known, would not be tolerated for two weeks, because future generations, unless meantime there was found a good substitute for coal, would rise up to condemn the wasteful methods that are now employed. It may be news to some of you to know that in some of the large producing mines of Illinois, instead of taking out 95 per cent of the product, they are taking out 60 to 65 per cent, and in some mines as low as 45 per cent. The balance is left in there, and in this way there is really almost as much

coal being destroyed as there is being brought to the surface, because they are trying to gouge it out in the most effective way in order to get the greatest production for the least expenditure of money. There is no excuse for it except that the men in charge of the coal property are required to get that coal out with the least expense in order to show the largest returns to the stockholders. They are only getting the coal that can be mined easily; the rest of it remains in the mine never to be gotten out. There will be no possibility of getting it. That in itself is sufficient to condemn this present arrangement if there was no other; but that is not all; there are many other reasons that might be assigned as to why we should not destroy the fuel supply of future generations.

Day before yesterday, I was asked to go to Cherry, Illinois, to take part in a memorial service held there annually, to commemorate the disaster that occurred there ten years ago on November 13, when two hundred and fifty-nine lives were lost because the inspector had permitted the mine to operated in direct violation to the law, as was admitted on the witness stand before the coroner's jury. This is only one instance. Every now and then we read of terrible toll of human life taken, and of course, according to the accounts in the press, it is always the model mine, the safest mine, that blows up; or some poor miner is charged with the responsibility of the disaster.

As a matter of fact, there is not a day when the sun rises in the east and sets in the west that at least one life is not snuffed out in the Illinois mines without any warrant whatever except disregard of law and absolute carelessness, because, as a rule, they find it cheaper to pay the miners compensation than to take care of the mines and make them absolutely safe. No country in the world produces coal equal to us, with as little timbering being required for the safety of the miners. This is explained in a large measure by the fact that the gov-

erments in the old countries are stricter about the observance of laws; but in this state the chief thing to do is to stand in politically, which makes one practically safe so far as persecution is concerned. Coal companies not only violate the law, but attempt to dictate politics in their districts, and take a very active part in selecting certain men to serve on the bench so that when cases arise, they can get favorable action.

Now, we are not going to agree that Illinois shall be placed on the same basis as Pennsylvania, which is dominated by the steel and coal companies. A branch of the same concern that brought shame and disgrace on Pennsylvania is sticking up the black flag of piracy in this state of ours, not only in the steel industry, but in the coal fields. Thus far they have not given us very much concern; they have been very decent, but they are gradually encroaching and forcing an issue, and one of these days they will come out with the same sort of a declaration they used in Pennsylvania. Anticipating what might occur when the trouble came, they introduced in the last session of the Illinois General Assembly—introduced by a representative from a rural district—what is known as the Police Constabulary Bill, which was intended to saddle on the people of the state of Illinois the burden of paying for a private army, such as Brother Maurer has described in Pennsylvania, and it required the very greatest energy and all of the power that we could mass to defeat that infamous measure.

They were able to convince quite a number of the farmer representatives of Illinois in the General Assembly that this was a measure in the interest of the farmers; but back of the whole thing was this infamous outfit that was seeking to grab up all of the industries in America, and then grab up the general assemblies as well. So, my friends, in addition to having the people own the public utilities, I think it might be well also if we can so arrange it to have the people own and operate their legislatures.

Now, I mentioned two phases of this coal situation. I happen to know a great deal about the cost of producing coal in the state of Illinois. I am quite familiar with the rates in different parts of the state. I know up until the recent strike that screened lump coal was placed on the cars in southern Illinois for $1.20 a ton, with a freight rate of approximately the same amount. I have friends mining coal, and I have other friends consuming that coal, and coal that is put on the cars in southern Illinois for $1.20 is sold in the city of Chicago for $8.00 to $9.00 a ton. I have a number of friends here that use one to five carloads annually and they have written me repeatedly to suggest a coal company, that was producing a good quality of coal. I have referred some twenty different people to certain companies that I know were producing good coal. I knew the mine and the natural conditions; but when these friends asked about the coal, the companies informed them they would like to accommodate them, but could not possibly do it, as the coal had to be handled through the Chicago office. It was impossible to buy direct from the mines, as they had an arrangement whereby the middlemen get a rake-off as the selling agency.

Then these large concerns, operating in the state, not only mine the coal down state, but they have a concern in Chicago known as the Consumers' Company. I do not know why they call it the Consumers unless they mean it is a concern to get the consumer! This company has arrangements with certain railroads that handle the coal; they have the mines that produce the coal; and they have the distributing agency to handle it after it is received in the city; so there is very little that escapes them, except the complaints of the people who dig the coal and the people who buy it.

One of these fellows, very prominent in the city of Chicago, went down to Washington during the war, as one of these dollar a year men. He received an appointment which carried with it the responsibility of seeing

that the American public get coal; and since he not only owned coal mines, but the distributing agency of coal, he saw to it that the public got coal. The Fuel Administrator was expected to put his stamp of approval upon the prices fixed, and he did. He is charged with fixing the price of coal, and the men who helped him were the men who were the direct beneficiaries of the situation. They fixed the price of coal because they were in a position to do it.

In one place the operators thought it was a favorable time to have some reform in mining; they wanted to put in a new set of lamps for the miners, and they figured that during the war a splendid time to put them in. The miners were to pay a certain daily charge for these lamps. The miners objected, and took the matter up to the State Mine Inspector, who suggested using a closed lamp, to which the miners agreed. But the operators said, "No, you will use the lamp we have selected. You will either use it or you won't work here." Mark you, the man in charge of that property was also appointed as a fuel administrator. At the time, he was president of the Illinois Coal Operators' Association. Because the miners objected, and fought the case, they were called pro-German, I. W. W.'s, etc., and the men calling themselves United States marshals were sent in there to break up the strike and arrest the leaders, at the instigation of these fuel administrators. One of the miners who was called a pro-German had such a strong Scotch accent that one would think he had just arrived from Bonnie Scotland, but the game worked out to the satisfaction of the coal companies.

Many of the mines yielded a war profit equal to four times their actual value.

Another evidence of the beauty of private ownership is the steel situation, a strike of three hundred thousand men engaged in that industry, who insist upon having something to say regarding the wages and conditions of employment in the steel mills. When one man can set

himself up as a dictator and say to the public, "Pay my price or you don't get steel," and to the workers, "Take the wages fixed by me, or quit and starve," it is a fine system, to be sure.

If it were only possible to give even an approximate estimate of the cost of private ownership, it would be astounding. The cost of strikes, the amount required to maintain the two great economic forces, organized capital and organized labor, would be sufficient to bring about public ownership if it were possible to apply it to that end.

And so my friends, organized labor has broken away from the old traditions and entered the political field for the purpose of more effectively bringing about this great change from private ownership to public ownership. As conditions exist today, it is a constant fight. With some thirty thousand millionaires, we must necessarily have many paupers. Therefore, we wish you every success in your undertaking to bring about this great change.

OUR INCORRIGIBLE COAL INDUSTRY[1]

Our investigation into the coal situation has convinced me that the private interests now in control of the production and distribution of coal, in spite of the efforts by some, are actually unable to prevent a continuance or a repetition of the present deplorable situation.—Senator Calder, Chairman of the Senate Committee on Reconstruction.

These words of Senator Calder's deserve a more searching consideration than they have received. So far as they are true they imply a drastic and unanswerable criticism of the existing method of producing and distributing one of the commodities most indispensable to the happiness of the American people. When the machinery of any essential industry begins to creak and

[1] From New Republic. 25 : 154-5. January 5, 1921.

groan, when it fails to satisfy the needs of its customers or when it satisfies them fitfully and at extortionate prices, the instinctive disposition of the American mind is to fasten all blame on the individuals who are producing and distributing the commodities, to accuse them of incompetence or greed and to pass legislation intended to forbid such malpractice. But if Senator Calder's account is correct, it is, in the case of the abuses of the coal industry, useless to blame individuals. The guilt is not personal. The coal operators and commission merchants are the victims as well as the beneficiaries of the existing system. They, as a group of private individuals who are operating a basic industry in obedience to the motive of their own profit, are unable and really have no license effectively to reorganize and control the industry in the public interest.

Coal is a commodity which the consumer must have and for which he will pay, if necessary, much higher prices than those at which it can be economically produced. For reasons into which we cannot go here but which are well recognized in the industry, the furnishing of an abundant supply of coal to all parts of the country at a low cost is a matter which requires an elaborate and smoothly cooperative organization. The industry as now operated contains the elements of such an organization, but the mechanism has many weak and outworn parts which frequently get out of order and when anyone of them does fail the breakdown has an unfortunate tendency to be costly to the consumer but profitable to the producer and the distributor. For when the consumer is threatened with a shortage, as he always is when a breakdown occurs, he will bid the price up recklessly in order to be sure of getting his necessary supply. The industry itself is at present incapable of legislating fairly and effectively against these abuses. It is owned and run by individuals and corporations whose interests, except in the matter of joint profits, are exclusive. They can combine to raise prices but not to reform abuses.

No one group of owners or operators which happened to control the national association could legislate without discrimination and prejudice for the industry as a whole. The utmost a national coal association can seek to accomplish for the public is the maintenance of a free and fair field for all operators and distributors, and a free and fair field for all the private interests engaged in an industry whose efficiency requires such an elaborate cooperative organization is the mother of the existing abuses. It affords an irresistible temptation and opportunity to profiteer. The operators may intend to combine for the purpose only of purging competition of its abuses, but when competitors whose legitimate motive is private profit combine, the net result of the combination seems necessarily to be an increase of common profits at the expense of the consumer. The standards of the industry cannot rise higher than its moral source —which is private and exclusive interests.

The inference to be drawn from this impotence of the coal industry to reform its own abuses is both radical and obvious. The American nation cannot obtain from the existing organization, ownership, and motivation of the coal industry the public service to which it is entitled; and the indispensable condition of grading the organization and operation of the industry up to the level of what it should be—that is an essential public service—is to change and improve its motivation. Its ownership must be vested in the community and its operation trusted to a board on which the expert salaried staff, the wage-earners and the consuming public would all find adequate representation. The object of such a reorganization would be to substitute for the existing motive of exclusive profits, accruing to people who own and merchandize the coal, a new motive which makes for cooperating individual purposes and efforts. The individuals who manage the industry cannot cooperate for the benefit of the public because the industry as organized affords the owners and merchandizers of coal

irresistible opportunities of reaping their largest profits not by serving or satisfying the public but by interrupting the service, and at times by deliberately thwarting the satisfaction of its customers. They never will cooperate until the American nation decides to abolish these privileged opportunities for exclusive profits and reorganizes the industry for the purpose of giving its directors and workers a common personal interest in rendering the industry efficient in satisfying the wants of the consumers of coal.

Senator Calder and his committee notwithstanding the essentially radical meaning of their exposure of the abuses of the coal industry are very far from drawing this conclusion, and there is some excuse for their timidity. The proposed reorganization of the coal industry would be a difficult and hazardous experiment which will never be successfully undertaken until modern democratic nations possess a much more intelligent faith than they have at present in the willingness and ability of human nature to find satisfaction in acting upon more disinterested motives. At this moment they do not know how to fit conflicting interests and differing individuals into an effective cooperative organization for the continued performance of a public service. If a political party with a policy of coal nationalization as one of its planks had won the election last fall, it could, considering the rudimentary nature of the existing technique of public administration, scarcely succeed in nationalizing the operation as well as the ownership of the coal industry. But while there are reasons for going slow and being circumspect about putting a policy of nationalization into immediate or early effect, there is no excuse in the light of the assertion at the head of this article for any further evasion of the deep seriousness of the disease which afflicts the coal industry. The American people may not be and are not prepared to practice a remedy as radical as the disease, but if not they must expect to pay a severe penalty for their unpreparedness.

They must expect abuses to increase and to become more costly and exasperating until they are ready to substitute for the existing method of producing and distributing coal a new method which will give to the producers of coal an interest in the efficiency of the industry as a public service.

As long as they are not ready to convert the coal industry into a public utility, they should be patient and considerate with the large body of their fellow citizens who suffer more than they do from the existing disorganization of the industry. We refer to the coal miners. In the light of Senator Calder's statement that "the private interests now in control of the production and distribution of coal are unable to prevent" the existing abuses from continuing, should not American public opinion be ashamed of its treatment in the fall of 1919 of the striking bituminous coal miners? The government of the United States with the support of public opinion condemned the strike as an offense against social security. Coal, it declared, was a public necessity and the miners of coal who by quitting work brought suffering and deprivation on the whole community deserved to be treated and were treated as criminals. But the coal industry which the government erected into a public utility for the purpose of breaking a strike was in every other respect merely an opportunity for private profits. The operators were allowed to make large sums of money out of the defects in the machinery of producing and distributing coal, but the miners, when the operators refused to discuss a new wage scale and other demands, were outlawed for adopting their only effective remedy. The gross defects in the machinery of production and distribution were more costly to the miners than to the consumers. They meant for the miners interrupted employment, low and precarious wages and wasteful methods of operation. The disorganization of the industry was reflected in the disorganization of their lives. Their demands on the

operators were framed partly for the purpose of doing away with some of the stoppages of production and at the same time with the casual nature of their work. If the organization of the industry had been that of a public utility and had offered to the miners steady employment under acceptable conditions, at fair wages and in the public interest, there would have been a real excuse for outlawing a strike, but to force Americans to work in order that other Americans may profiteer at their expense and at the expense of the public, which was what the government did, was a far more blameworthy performance than that of the striking miners.

NATIONALIZATION ISSUE[1]

The present situation appears to many of these "mere consumers" in a very unfavorable light. It appears to them that the struggle over nationalization is purely a struggle between two sections of "producers," and that the interests of the consumer are being entirely overlooked. This diagnosis of the situation possesses an element of truth; but it is none the less wrong. The real struggle is not so much between the capitalist "producer" and the workman producer as between the property owner and the workman. It is not really two rival methods of production that are contending for mastery, but two rival systems of wealth distribution. The very propaganda which is being conducted by the coal owners and their allies, as well as the present tactics of the propertied interests in the House of Commons, serves to make this very clear. Although a word is said now and then of the consumer, the main ground of the opponents of nationalization in the case of coal or railways is that if private enterprise is attacked in one case the result will be to undermine the whole system of private enterprise. The fear of this is the cause of the wide-

[1] From article in the New Statesman. 13 : 439. August 2, 1919.

spread support given to the coal owners by capitalists in other great industries, such as iron and steel and engineering. The cry throughout the world of capital is that "property is in danger." Nor is hostility lessened by the fact that there is every likelihood that nationalization, if it comes, will be accompanied by more than adequate, and even more than generous, compensation. It is felt, and felt rightly, that if private ownership and control of the vital industries disappear no system of compensation will prevent a drastic readjustment of the claims to income of the various members of the community. Reduced to a *rentier,* the capitalist is not optimistic about his chances of retaining his present share of the national income.

It is important to realize that these tactics of the opponents of national ownership have the effect of shifting the issue away from the question of efficiency and service to the consumer to that of the rights of property. It is truly remarkable how little argument is being advanced to prove that private enterprise is more efficient than national ownership. Indeed, neither the admitted chaos of railway administration nor the facts about the economic waste involved in the private ownership of collieries admit of argument. The opponents of mine nationalization are compelled to turn their backs upon the revelations of the coal commission and to search out some other issue on which to fight. "Property is in danger" has been chosen as their rallying cry. It is an ill-chosen ground on which to ask for the sympathy and the support of the consumer, for it offers no guarantee, indeed holds out no hope, of more efficient service in the future. The issue of nationalization has been forced to the front by the fact that the workers are no longer prepared to acquiesce in the continuance of the present system, and that they are now strong enough to make its continuance for any long time impossible. The signal examples of waste and inefficiency which the coal commission has brought publicly to light

have existed, for those who had eyes to see, these many years, but it is the human revolt of labour that has brought them clearly into view. The argument for coal (and also for railway) nationalization is thus twofold. It has been shown that private enterprise is inefficient, and the labour revolt has made impossible its continuance even at that low degree of efficiency which it has hitherto possessed. We may not know fully how national ownership will work out in practice, and we may admit that the admission of the workers by hand and brain to a real share in control will have to pass through a stage of experiment before a satisfactory adjustment can be reached, but we are faced, and the consumer especially is faced, by the fact that the propertied interests which are opposing nationalization offer no alternative to the present system. In standing for the protection at all costs of private property and private enterprise they are merely inviting the consumer to ensure a progressive development of inefficiency as the labour revolt becomes more continued and pronounced.

NEGATIVE DISCUSSION

MEMORANDA FOR DEBATE ON GOVERNMENT CONTROL OF THE COAL MINES [1]

Federal operation of the coal mines of the country would be an economic mistake. It would throw under government control and regulation an industry that of its very nature is competitive, and the operation of which, from the viewpoint of the public, is most advantageously carried on through competitive methods.

Mining is a hazardous industry and one in which the investor puts his money at great risk. It is an industry in which fortunes may be sunk and have been sunk in investments that are distinctly uncertain. It has been characterized as a "gamble."

Because of its vast, complex nature, with bituminous mines spread variously through thirty states out of the forty-eight in the union and anthracite mines running thickly through Pennsylvania, the coal mining industry is one which the government would find it utterly impracticable to operate either under a system of ownership or of direct control. Approximately seven thousand coal producers or companies are engaged in the bituminous fields. They employ over six hundred thousand miners each year. The yearly output runs from five hundred million to five hundred and fifty million tons. Approximately five hundred operators are engaged in the anthracite mines which turn out from ninety million to one hundred million tons a year and employ about one hundred and fifty thousand men.

Aside from the obvious fact that Federal ownership

[1] By John B. Pratt, editor Coal Review. 11p. Mimeographed. National Coal Association. Washington, D.C. 1920.

would destroy competition among the owners of these widely scattered mines, it would be an impossible task for the government or any other central authority to attempt to coordinate into one practical unit such a stupendous enterprise. The physical work entailed in it would be enormous and the expense would be relatively great.

To properly visualize the coal mining industry, one must understand, in the first place, its diversity. It is not an industry such as wheat growing for instance, in which the product is virtually the same wherever it is cultivated. Coal is found in the ground at different depths, and widely different veins. In some fields there are rich, thick veins of pure coal, running for considerable distances underground and relatively easy to mine. In other fields, scattered throughout the various states, there are indifferent veins of coal, some of inferior grade, some with vexatious deposits of slate, ash or other non-combustible elements, all combining to make the mining of the product difficult and, frequently, highly expensive. No single standard can be applied to the mining of coal. The means to be employed differ according to the variance in quality and quantity of the deposit.

Again, there is the element of constant menace to the mining investment through the sudden running out of a vein of coal and, beyond that, the menace of destruction to the property under operation through fire or flood. Never is the coal mine immune from these risks. It frequently happens that the major part of an investment is wiped out through the unexpected collapse of a vein which, when the property was bought, appeared fertile in output. And many times it has happened that all the profits of the investors have been obliterated through the agency of disastrous fires or floods that cannot be guarded against.

These risks and dangers are ones which an economic government, seeking to serve the public interest, logically could not assume. They are speculative risks that at

once must raise in the minds of thinking people a grave doubt as to the wisdom of government operation of any such venture. They are such risks as can be undertaken only by private capital, willing to take the chance, or the "gamble," with a sublime optimism and an undaunted faith in the future.

Before the war, few coal mining properties yielded anything like a fair return on the invested capital. In the bituminous field this was particularly true. Hundreds of coal mine investors went bankrupt. Today the average yield upon invested coal mining capital for the larger companies is much less than 6 per cent. Many mining operations have yielded far less than that; some of them have managed only to pull out just ahead of the debit column. This record of itself, with the severe competitive conditions that exist and the low prices which normally prevail for coal in the open market, do not argue any too eloquently for governmental operation or ownership of the mines.

The conservatively estimated value of bituminous coal properties under development today is approximately $2,000,000,000, while the value of the anthracite properties now under operation is approximately $1,000,000,000. If the government essayed to take over this property it would naturally be expected to pay the mine owners a reasonable percentage of return for the property taken. In the end it is estimated conservatively that it would cost the government something approaching $4,000,000,000 to take over the country's coal mines. After the mines were taken over by the government there would still be the risk of investment, with the danger of mine fires and floods and all the other attendant difficulties that constantly face the mine operators and which eat into, and oftentimes obliterate, the profits. The government as a mine owner would face the same physical difficulties, in other words, as do the operators.

In like manner, Federal control,—not ownership,—with drastic power to regulate prices and production, such

as has been hinted recently, would prove of no advantage whatever to the public but in the end would prove to be a serious disadvantage. With ten thousand or more mines to operate and some eight hundred thousand or more employees to deal with in their operation, the country's coal mines under government control would develop into a cumbersome, slowly-moving, creaky machine which would turn out tons of coal without the incentive of competitive conditions and therefore without the advantage to the public of low, competitive prices in the market.

Judging from the experience of the government under the Adamson Law, which gave drastic concessions to railroad employees, it may be assumed that, with the mines under government control, similar labor difficulties, with insistent demands for more pay and shorter hours would constantly crop up. This would mean frequent upsets in the operation of the mines, with the inevitable result of increased cost of production and advanced prices for coal in the market.

Already there are upon the statute books enough laws to govern distribution of coal. No further Federal regulation is needed to make distribution more effective. Under the Esch-Cummins Law, the transportation measure passed at the last Congress, ample authority was given to the Interstate Commerce Commission to provide for the apportionment of coal cars at the mines in times of coal shortage emergencies. Under that law preferential shipments may be made to communities in dire need of coal. That law was put to an extreme test during the bituminous coal shortage of this year and it worked effectively.

As the country knows, a grave shortage in soft coal threatened the nation early in 1920. Through the efforts of bituminous coal operators acting through the National Coal Association and railroad systems aided by Daniel Willard, chairman of the Advisory Committee of the Association of Railway Executives, priority orders were put into effect, through the opportunity afforded under

the Esch-Cummins Law, by which this shortage crisis was overcome and the country was saved from a soft coal famine during the winter. No greater emergency ever faced the operators in their efforts to get coal to the public than that of the year 1920. And in no better way could the efficacy of the Esch-Cummins Law be tested.

Coal production, aside from periodical strikes at the mines, is a matter of car supply. With adequate car supply the country's mines are able to turn out all the coal the country wants. An adequate supply of coal means active, natural competition in all coal markets and this means low prices to the consumer. It is all a matter of the operation of the law of supply and demand. And that problem is solved through the simple means of adequate transportation facilities, assuming at the same time that the mine operatives remain at the work of digging coal.

It is not, therefore, that the country needs any further governmental regulation to expedite distribution of coal. If any laws at all are needed it would be such laws as would compel observance by mine workers of contracts sacredly entered into between them and the operators, under which, in return for a stipulated wage, the miners bind themselves to stick to their work. Such contracts are already in force but, unfortunately for the public, are too often broken by the mine worker. Disastrous strikes that tie up mines for days at a time all too frequently occur. If some way is found to induce the miners as a whole to adhere to faithful observation of their contracts there would be no labor difficulties at the mines to tie up the output of coal. And in the same way railroad employees should be obliged to fulfill their contracts with their own employers.

Critics of proposals to federalize the mines deplore what they call the socialistic tendency of any such move. They say it smacks of sovietism. They argue that, to put the mines under Federal control involving price fixing and putting through other drastic regulations upon the

industry, would at once destroy the principle of individualism, under which healthy competitive industry flourishes and to substitute for it a blighting, stifling paternalism.

One of these critics, Representative Everett Sanders a lawyer of Terre Haute, Indiana, writing to Mayor William L. Gleason of Brockton, Massachusetts, characterizes the suggestion for government regulation of the price of coal as "a shortsighted policy and a sad economic mistake." In this letter to the Mayor, Mr. Sanders, who comes from a coal producing community, spoke of supply and demand as being "the only law that will ever truly regulate a price to be paid for commodities which are not the subject of monopoly." In his letter Mr. Sanders going into a practical analysis of the whole theory of government regulation of the coal mines wrote:

During the war the price of coal was fixed by a Fuel Administration created by the President to take over the price fixing and regulating functions under the Lever Act. The proposal to revive the price-fixing policy in regard to coal is the first serious proposal to carry our war powers and our war policies into the period of peace.

I think there is considerable doubt as to the constitutional power of Congress in times of peace to fix the price of coal. While war powers do not necessarily end with the war, yet the power used must bear some reasonable relation to war. A general price-fixing law relating to coal is not a regulation of commerce within the meaning of the commerce clause of the Constitution.

Let us pass over the question of the power of Congress to enact the legislation, into a consideration of the wisdom of such action on the part of Congress. Money is merely a medium of exchange by which a person having certain articles of value may obtain other articles of value in exchange therefor. Your shoe dealers and shoe manufacturers have shoes, more than they need personally. The people in the coal-producing regions have more coal than they need personally. Now it is proposed not to permit them to trade on an equality, one pair of shoes for one ton of coal if the prevailing prices are equal—neither is it proposed to let a governmental body fix the terms upon which the trade shall be made—that is, to fix the price of the pair of shoes and the price of coal. But it is proposed to determine the value of the coal by an arbitrary method and then when the price is lowered to make the coal regions furnish you two tons of coal for the pair of shoes, or three tons for two pairs, as the case may be.

Supply and demand is the only law that will ever truly regulate a price to be paid for commodities which are not the subject of monopoly. This law is as old as the practice of barter and trade and as unchangeable as the fixed stars. Any meddling with the law of supply and demand, except as a temporary expedient in extreme and unprecedented situations, serves a harmful rather than a helpful purpose. The reason is apparent. When a commodity is scarce it is very necessary to increase its production.

In this country as in every civilized country, the spur for production is the desire for profit. If a price-fixing tribunal should put lumber at three times its present price, and at the same time should cut the price of coal 50 per cent, capital and labor would run to the production of lumber and desert the production of coal so that although the price of coal might be quite low it could not be obtained.

A glaring instance of what would happen to the mines under government control is given in the experience of the railroads under Federal control during the war. The public cannot by this time have forgotten the intense discomforts that prevailed in the operation of the railroad systems under government control during 1918 and 1919 when passenger and freight transportation services were demoralized and rates for transportation were greatly advanced everywhere. The public was under this disadvantage during the time the government ran the railroad systems, the effect of government administration of the roads was as keenly felt after they had been returned to private ownership after the war. When the railroads again had their system under control they found for one thing that approximately $1,017,000,000 was needed to build up lines that had been allowed to deterionate, and to bring the earnings of the roads up to approximately the 6 per cent basis provided by Congress under the new transportation act. Of this amount some $670,000,000 was needed to buy rolling stock much of which had suffered through depreciation during the war and was practically useless.

To maintain its freight car equipment including open top cars for coal mine service the railroads, before the government took them over had built on an average of one hundred and twenty-five thousand cars a year. During the war period and up to January 1, 1920,

although the need for all freight cars had increased the total freight car construction of all types had been but two hundred and fifty thousand cars. This left the railroads with a shortage of some two hundred thousand freight cars of all description. To catch up with the serious lack of freight cars the railroads gave orders early this year for as many cars as could be built, but it is conservatively estimated that not over eighty thousand cars will have been turned out of the shops by the end of the year. It is estimated that the railroads are short at least one hundred and fifty thousand open top coal cars for mine service.

With the indifference displayed by the government in the imperative matter of increasing the number of open top cars required by the mines it may be assumed that other vitally important phases of the coal industry, if put under governmental hands, would suffer. Red tape, so fatal in governmental departments both in times of war and peace unquestionably would creep in. Government officials scattered throughout the country in coal jobs would hardly be expected to show the same zest in serving the public with coal as would mine operators and others in the industry whose very livelihood depends upon the efficiency of their activity.

What might develop in a governmental fuel control system was portrayed in a news article in the New York Sun, Wednesday, November 17, in which the writer described some of the methods of the United States Shipping Board in getting its own coal. Says this writer:

A member of a coal distribution committee which has assisted the Interstate Commerce Commission in meeting the fuel emergency told of being called on the telephone by a department head of the Shipping Board and asked to come to his office.

"He told me he wanted to talk to me about the acquisition of coal for the vessels of the Shipping Board" he said. "I told him that I was engaged at the time and would arrange an appointment for him to come to my office. He said that he couldn't come to my office because he was going out of the city that day, and insisted that I come to his office. I told him that I would do so, and that is the last I heard from him."

Officials of the National Coal Association who have assisted

the Navy Department and the government fuel yard in Washington in obtaining needed supplies of coal this year said that they had not been asked by the Shipping Board to give assistance in getting coal for bunker purposes.

At the offices of the Interstate Commerce Commission it was said that no request has been received from the Shipping Board this year to lend assistance in getting coal from the mines for use on merchant vessels or as a means of avoiding the payment of excessive prices at the ports.

Here was a governmental department, with an immense contract for coal to place, but lacking energy to employ the simplest means to place the contract advantageously. The deadly effect of bureaucratic inertia is clearly evidenced in this incident. The selfsame indifference as was shown here unquestionably would creep into any system of government control of the country's mines, but to a greater extent.

The hazard of coal mining, whether as a governmental or private enterprise has been impressively depicted by L. E. Graton, Chief of the Mineral Division, Internal Revenue Bureau, Treasury Department, and an expert in mining. Speaking for the American Mining and Metallurgical Engineers in Chicago in September, 1919, Mr. Graton emphasizes the point that the mining industry involves "different principles," and is upon a different basis than other forms of enterprise or investment. Mr. Graton said:

Two essential factors serve to distinguish the economics of mining from the economics of other industries, first, the much greater risk generally involved, and, second, the fact that the life of the enterprise is fixed by conditions over which those engaged in it have but little control.

If the hazards of mining could be brought down to the average level of other industrial undertakings and if the life of mines could be maintained indefinitely by application of a good average degree of intelligence and effort, mining would take its place on the same plane with the manufacture of clothing or the growing of wheat or the running of a hotel. As a matter of fact, however, neither of these things can be brought about; in consequence it is necessary to consider mining as something different from a business in the ordinary sense and in a class apart from most other undertakings. For the mine operator not only shares the risks common to other types of enterprise, such as the un-

certainties of labor and the fluctuations of market, but he has in addition to bear certain unique risks peculiar alone to mining and equaled in magnitude in few if any other industries.

But in mining the raw material represents the chief investment and the raw material is the ore. In general, the success of the mining enterprise depends primarily on what nature has put into the ground. Over that no man has control and, ordinarily, no one may know what or how much until he spends much money to find out. And if one company's operations demonstrate that, in a given tract of ground, nature was not sufficiently generous to give man a profit, it would be difficult to persuade anyone else to purchase the property—the value is next to nothing.

The immense majority of mining ventures are failures. A multitude of disappointments is relieved by occasional success. Under such conditions, a high return to the few fortunate ventures does not constitute a true surplus, and must be accepted without prejudice as a necessary and legitimate stimulus to efforts that inure to the benefit of society

Federal control of the mine industry with regulation of prices and all that it implies would be no more practicable than Federal control of the growing of wheat, or any other basic commodity. If the government ever starts into the business of running coal mines it would be only a matter of time before attempts would be made to similarly regulate every other form of private enterprise. America's industrial life is based, not upon monopoly but upon the theory of open lively competition and this cannot exist under bureau administration. Socialistic control of enterprise would tend to smother the very principle upon which successful enterprise must rest. If the government is to attempt to break into one line of industrial endeavor a blow will be struck at our whole economic system. It would be a fatal venture.

DEADLY BLIGHT OF GOVERNMENT CONTROL [1]

In light of the attitude of the United Mine Workers of America, as expressed by John L. Lewis, before the House Labor Committee recently, in advocacy of na-

[1] By Herbert N. Casson, eminent American and British writer. Coal Review. 4 : 32. May 24, 1922.

tionalization of the coal mines, the following article is of especial interest. It is printed by courtesy of The Efficiency Magazine.

Speaking quietly, without rage and prejudice, can any one tell why it is that government departments in all countries are slow, wasteful and incompetent?

There must be some basic reason for this, as the individuals in these departments cannot all be inferior to the individuals in private firms.

Almost invariably an able man becomes disabled when he is placed in a government department.

He becomes timid, procrastinating, noncommittal evasive and unprofitable. He becomes a mere chattel of routine.

Why is this?

The fact seems to be that man simply cannot be competent in a government job, for the following reasons:

1. There is no payment by results.

There is no piecework. There is no profit-sharing. A man gets as much for doing badly as he does for doing well.

2. There is no fear of discharge.

A man may be transferred, but as long as his conduct is satisfactory he cannot be discharged for incompetence. Any sort of a fool can hold a job forever in the civil service.

3. There are no profits to be made.

There is no possibility of bankruptcy. If the department doesn't pay—very well. The treasury has plenty.

4. There is no danger of losing customers.

A government department does not depend upon its customers, so that it has no incentive to be quick and courteous and obliging.

5. The main thing is accuracy, not success.

A government employee has simply nothing to do with success. His aim is to avoid mistakes. The less he does —the fewer mistakes.

6. Time is of no consequence.

As all government employees are made into clerks they come to have a clerk's disregard of time. To clerks' as to lawyers, a delay is a relief and a comfort—the more the better.

7. The work is impersonal.

There is very little personal responsibility in a government office. The clerks have arranged a system whereby nobody is to blame, no matter what happens.

8. There is no competition.

A government department is always a monopoly. If it were not it would soon be thrown aside. It has no competitors to battle with, and it can take its ease and do as it pleases.

9. Routine is put ahead of service.

In government departments all the workers (if I may use the word) are tied with red tape. They are all the slaves of a system of procedure.

10. There is no enthusiasm.

If a man stays in a government job long enough he becomes mummified. He loses all the energy and joy of living that are so necessary to efficiency and success.

These are a few of the reasons why nationalization always has failed and always will.

Just put yourself in the place of these poor automats. No matter how able you are, how could you be efficient if you had:

No hope of profits; no fear of failure.
No competitors; no customers.
No reason of hurry; and
No danger of being found out.

Nationalization is not only a destroyer of trade and commerce. It is not only a coral reef built across the harbor of prosperity.

It is worse. It is far worse. It is a destroyer of men. It takes an able man and grinds him down until he is a clerical drudge.

GOVERNMENT COAL MINES[1]

In a speech at Brooklyn on Saturday evening ex-Governor Hill essayed a defence of the clause of the Democratic state platform which demands that the government shall take possession of the anthracite coal mines under the law of eminent domain. This proposal is no doubt attractive to many persons who look forward to the coming winter with grave apprehensions of a coal famine. As the plan contemplates fair and just compensation to the owners, we need not consider its legal bearings except to remark that the application of the law of eminent domain is not an instantaneous operation. Appraisal of the numerous properties would be a tedious and protracted task, and would involve a hot dispute. The owners would expect a price based upon past earnings; but since a mine becomes less valuable every day that it is worked, and is doomed to exhaustion sooner or later, and since the coal-carrying railroads will not be worth much after the coal is gone, a fair price would be much less than a capitalization of the usual income. Therefore the "due process of law" which the Constitution requires could not be carried into effect for a long time, in any event. The present crisis in the coal trade would have passed away long before.

Would it be conducive to the public interest that the government should undertake the business of coal mining? People who attempt to decide this question offhand assume that there is some mysterious power in a government, enabling it to take hold of a new and vast business of the most technical and complex nature, and make it a success, where private enterprise and skill of the highest type, backed by unlimited capital, have resulted in a deadlock. The least reflection should convince us that if the government owned the mines and machinery today, it would inevitably break down in an attempt to supply fifty million tons of anthracite coal in

[1] From Nation. 75 : 298-9. October 16, 1902.

twelve months and deliver it to the buyers at the average price heretofore charged for it. The only way it could accomplish any effective work would be to hire the present owners and employees, at suitable salaries, to carry it on. This would be the first thing to do. Increased cost of output would follow directly. Government seldom gets any work done as cheaply or as well as private persons do. The spur of self-interest that devises economies which make up the whole difference between success and failure, would be wanting. Moreover, miners would expect higher wages from the government than from private operators, and would have considerable influence as voters in deciding what the wages should be. Unless coal mining is to become in part a charge upon the taxpayers, the price of coal would have to be increased largely and permanently.

We have assumed that the government might secure the services of the men who are now the heads of the mining industry, but this is by no means certain. Very few men possessing the requisite skill and experience could be obtained for the salaries which the government usually pays to its highest public servants, such as cabinet ministers, justices of the Supreme Court, etc. It is quite certain, however, that the politicians would very soon be scheming for these places, both high and low. If "the government" which is to own the coal mines means the government of Pennsylvania, Senator Quay would soon be the boss of all the mines and carrying companies, and every man who entered the service, either as a certificated miner or as a mule-driver, would eventually be an office-holder whose place be at the disposal of the party machine. All these things would happen unless the government of Pennsylvania should have means for operating coal mines and railroads superior to those which it has for administering municipal affairs in Philadelphia and Pittsburgh. But it would probably have less, since there would be fewer persons to keep an eye on the office-holders in the mines than on those in the City Hall.

Governor Hill favors the policy of the national government instead of state governments taking charge of the coal mines, because he says it is a national question. In that event the transfer of ownership would not be restricted to anthracite mines. It would embrace bituminous mines and lignite beds, and probably oil wells and natural gas. Mr. Hill seems to favor the working of gold and silver mines by the government also. Iron, lead, copper, zinc, and borax mines would naturally come next. All the political meddling that we might expect from separate state action would be repeated on a larger scale. The people would demand all the products of government mines at as low a price as they were previously supplied for, and, if there were a failure of the supply, or a material advance in price, would "arraign" the party in power, and, in any extreme case like the present deficiency of coal, would hurl it from power.

The public interest lies in having coal supplied in sufficient quantity at the lowest possible price. There is no reason to believe that the government could do this work nearly as well as it has been done in the past by private enterprise. No doubt there have been grave abuses in the private mining and transportation of anthracite coal which a wise government might properly take cognizance of and chastise, without assuming ownership of the mines; but those abuses have been fewer and less heinous than would have been committed under government mining, while the supply of coal has been more regular and the price lower to the consumer than it would have been under such a system.

EXPENSE OF ACQUIRING MINES [1]

From the viewpoint of the cost to the government, the acquisition of the country's mines is a formidable problem and one with which the public should be familiar

[1] By John B. Pratt. Federal Control of Mines an Economic Fallacy. p. 6-7. National Coal Association, Washington, D.C. May, 1923.

before being misled into any fantastic scheme of nationalization. The conservatively estimated investment value of bituminous coal properties under development today is approximately $2,000,000,000 (United States Census Bureau report, 1921), while the investment value of the anthracite properties now under operation is approximately $1,000,000,000. If the government essayed to take over this property it would naturally be obligated to pay the mine owners a reasonable compensation for the property taken.

In the end it is estimated conservatively that it would cost the government anywhere from approximately $3,000,000,000 to $4,500,000,000 to take over the country's coal mines as they exist today, making allowance for good-will and other vested rights. And that would not encompass the aggregate the government would have to pay, for there are vast undeveloped coal lands to be considered, lands that are now in other hands than those of operators, where coal deposits lie known and unknown, explored and unexplored, beneath barren wastes or cultivated fields. From time to time in the future as these deposits were uncovered the government would have to take them over, reimbursing the owners.

In any serious consideration of the proposal to have the government buy up the coal mining properties, the uppermost thought, in fact the only one, must be as to the actual benefit to be derived by the public. Coal would not be any more plentiful under government ownership. There are sufficient coal deposits, it has been calculated —we are speaking of the *bituminous* product—to last some seven thousand years. There would be no more ease in getting coal out of the mines, for that is entirely a matter of men and machinery.

The bituminous mines in operation today, it has been estimated, have a potential annual output of more than seven hundred million tons, which is at least one hundred and fifty million beyond the high present average demand of the country. The highest output which the bituminous

mines have yet been called upon to produce has been 579,386,000 tons, in 1918.

Let it be understood that ample output of coal depends upon two things—

(1) *The miners remaining at work.*

(2) *Adequate railroad facilities with which to haul the product from the mines to the market.*

Under private ownership miners quit work on strikes for higher wages, regardless of written contracts with their employers. Under government ownership it is not conceivable that there would be any abandonment by the miners of the strike weapon. The railroad employees, *under government control of the roads,* during the war threatened a nation-wide strike for higher wages and got them. The miners openly assert, in public utterances, and they are on record before the United States Coal Commission as insisting, that they never will relinquish the right to strike. So there would be the same dislocations of mining operation as under private ownership.

Under government ownership of the coal mines there would be no more adequate transportation facilities than under private operation. The transportation problem in coal as well as all other commodities is one for railroads to handle. Whatever governmental intervention may be required at any time to make transportation service at the mines more effective is already in the hands of the Interstate Commerce Commission.

SUGGESTION ON COAL[1]

It is a truism that the history of American development has been the history of wasted natural resources. Man seldom thinks of conservation until the approach of total consumption of a natural resource prompts him to do so. This is true of forests, agricultural resources, and mines. It is true of man-power and the potential

[1] By Walter L. Ballou. Atlantic Monthly. 128 : 851-3. December, 1921.

possibilities of man-power, to such an extent, that it has been said that in its treatment of men America is today wasting her greatest natural resource.

Conservation is out of the question without the moral support of the public that consumes the product to be conserved. As long as an industry dealing with a natural resource is operated on a competitive basis, so long must waste be the key-note of operation. One mine-operator is forced, for instance, to mine the cream of his potential output, in order to meet the competition from another operator who is doing the same thing. He cannot mine "clean," because the cost of such mining will not permit him to meet the competition of the producer who does not mine clean.

The result is to be found in England, where today the pits have been worked far back, and each year sees an added cost of production, making more difficult the competition that the British producer has to meet. It is true that, if present mining methods continue in this country unchecked, America will eventually have to face the same problem.

There is no question as to the over-production of coal in the country, caused by an over-development of mines. That, too, is the result of the basis of open competition that obtains. Good years in the industry call forth the opening of new mines, or the reopening of old ones that have been idle during dull years. What control, other than through government ownership, can the government exercise, which will check the natural effort of one man to make money in a market where others are making it?

Admitting the evil, we believe there is a solution which, while at the further end of the social pole, will come nearer to being a solution than that proposed by Mr. Suffern. Let us first consider some of the evils which might be expected to accompany government control, and then state the suggestion.

During the "tight" coal market of the summer of 1920, various attempts at control were made by the gov-

ernment, directed chiefly toward forcing lower prices. These were attempted through regulation of the car-supply by priority orders favoring coal-movements. One priority order alone, however, which in effect permitted the abrogation of contracts with dock operators in the northwest,—if, in fact, it did not force that abrogation,—resulted in adding approximately $13,000,000 to the fuel-bill of that section, without getting a pound more coal moved into the territory than would have moved without the orders. Other priority orders, intended to make possible greater production, resulted in a dispersion of available equipment to an extent which militated against the object in view.

As to control by the government in other industries, the railroads and the merchant marine are eloquent of what waste is possible and actual under such direction. Not only was there an actual loss of millions of dollars during Federal operation of the roads, but the loyalty of the railroad men was squandered to an almost irremediable extent. Recent figures given out by the present head of the Shipping Board show that the loss in that venture alone ran higher than $1,000,000 daily during the last fiscal year of operation.

Nor is this condition one that is due to questionable motives or willful intent. Government control lacks that personal interest which nature has decreed must underlie conservation. There is a lack of centralization of responsibility that no idealism of good intent can offset. Delegation of authority and responsibility carries with it a cost which prohibits conservation as it fosters waste. In New Zealand, where government operation of mining in the coal industry has been tried, it has been found that production costs were higher and labor troubles greater and more frequent than under private operation. The experiment has resulted in less, rather than more, conservation of both money and good-will.

That control is necessary before conservation can be accomplished is evident, since conservation means con-

trol. May we suggest that that control can best be effected by increasing industry control, rather than lessening it through the introduction of government control? Railroad heads today are confronted by the evils of divided authority as the result of paternalistic attitude on the part of government. They are much in the state in which Browning's Saul found himself,—"death gone, life not come,"—unable to put into effect those economies that are essential if railroad transportation is to recover from its present chaotic condition. Is it not reasonable to believe than an extension of control over coal to government agencies would have a similar result in this industry?

The history of what is commonly called "big business" has been marked by a degree of conservation that has not been found in other forms of industrial arrangement. Whether we take the packing industry, the steel industry, or the petroleum industry, the gathering of control into a few hands has made possible a saving and elimination of waste that never could have existed, and did not exist, under open competition between hundreds and thousands of small firms and individuals. "Big business" not only has adopted modern methods of production, accounting, marketing, and "labor-adjusting," but has developed raw natural resources to the highest degree, bringing forth by-products in profusion out of what under former management had been waste. Through maximum production, which this control fostered, prices have been frequently lowered as compared with prices under competitive conditions. Monopoly, with all it is frequently said to imply, has been a benefactor to the public as well as to the industry in which it is born.

In the coal mining industry such a monopoly would have even greater possibilities for good than in most other industries. Present over-development in coal lands has resulted in wasteful dispersion of railroad equipment, increasing the cost of transportation of fuel, and, in times of emergency, cutting down the potential haulage

of the roads. Were the coal lands of the country in the hands of a comparatively few well-financed corporations, new lands would be held in reserve while old ones were being developed along modern scientific lines. Without the struggle that now is frequently necessary in the attempt to meet necessary overhead expenses, it would be possible to install permanent equipment needed for economic mining; the operator would know that he could depreciate that equipment on a producing-time, rather than on a largely idle-time, basis, and would not feel the necessity to recover his investment in a year or two.

Such control would also tend to minimize the waste in man-power that accompanies present methods. Introduction of modern machinery would be one factor; but the elimination of hundreds of mines from operation would in itself release thousands of men from the industry for other employment, and at the same time tend to increase the annual working time of those who remained. Conservation would be accomplished also in the selling end of the industry, since duplication of merchandizing forces would be unnecessary.

It is true that, as in other industries, such concentration in a small circle of control of the vast coal resources of the country would carry with it possibilities of evils and dangers; but it is to be doubted whether these would be as great, from the public's standpoint, as would the waste and inadequacy of government control. The public has not forgotten that heatless days and lightless nights were never known outside of Federal control of coal, and that they happened then even after war-inconveniences were past. It may have forgotten that it was government interference that gave the union miners a wage-rate which is largely responsible for the present high price of fuel; and that it was government operation of the railroads which brought about freight-rates on coal that are the other real factor in present coal prices. It finds it possible under monopolistic conditions in the petroleum field to buy gasoline at a satisfactory

price and with satisfactory service. It has voiced its sentiments in favor of private control of private business, and it stands ready, we believe, to back that expression, if need be.

The government has been far more successful in coping with the evils of private monopolistic tendencies than it has been in attempts at direct control of an industry. In those fields where a few well-financed firms have gained control of the output,—as in Franklin County, Illinois, for instance,—a stability of policy tending toward efficiency is to be noted, as well as a stability of price in what may be called runaway markets. Is it not reasonable to suggest that an expansion of this control, rather than that of government, may in the end prove the solution of the problem, and result in a real conservation of coal?

COAL PROBLEM[1]

1. It is asserted that our coal deposits are about to be exhausted, and that consequently the government must interfere or the United States will soon find itself without coal.

The complete refutation of the fallacy is found in the evidence recently taken before the Senate Committee on Manufactures. At that hearing governmental experts, great coal operators, coal dealers, and labor leaders all testified. The undisputed testimony shows that there are already discovered in the continental United States bituminous coal deposits which reach the stupendous aggregate of between three and four trillion tons. At the present rate of consumption it will therefore take approximately six thousand years to exhaust the known supply.

The deposits are scattered over thirty-one states and Alaska. Great mining operations are carried on in twenty-

[1] From speech of Senator James A. Reed of Missouri. 22p. June 8, 1921. Government Printing Office.

four states. Undoubtedly other deposits will be from time to time discovered.

Bituminous coal is the one thing that for all practical purposes may be said to be inexhaustible.

Six thousand years from now the present known supply, at the existing rate of consumption, may be gone, but by that time humanity will probably have advanced to a point far beyond the crude processes of producing heat by burning coal. We need trouble ourselves little about a problem which lies six thousand years in the future.

Mr. Overman: Some years ago President Roosevelt appointed what was known as a conservation commission and did me the honor to put me on the commission. I remember that the experts then stated that the supply of coal would be exhausted in about forty years.

Mr. Reed: I think they were talking about anthracite coal. I am now speaking of bituminous coal, and am supported by the undisputed evidence given before the Senate Committee on Manufactures. It follows that the entire propaganda predicting the early exhaustion of coal and the freezing to death of mankind is without the slightest foundation of fact and utterly ridiculous.

2. It is asserted that the great coal producers are, and have been for years, combined together to charge extortionate prices for coal when produced at the mouth of the mine. Accordingly it is argued that the government must take possession or control over the mines in order to protect the people from the machinations of these evil conspirators.

Both the statement of fact and the conclusion based thereon are refuted by the testimony taken by the committee. At the end of the exhaustive hearings not a scrap of evidence had been given tending to show a combination between the great mine operators. Upon the contrary, it was proven that there are in the United States over eleven thousand large coal mines; that these mines are controlled by over seven thousand operators. It was also shown that coal in many localities juts from the sides of the hills and can be worked by farmers or by

miners employing the pick and shovel. The coal from this latter class of mines comes into the market as soon as there is a coal shortage and the price is materially advanced. Deposits of this character I am now discussing are scattered throughout the vast coal areas which, as has been shown, exist in thirty-one of the states of the union. The evidence before the committee demonstrated that during the coal shortage of 1920 there came into existence within one year's time along the line of the Pennsylvania Railroad in two states over one thousand new mines.

According to the testimony, the mines of the country were increased from 5,776 in the year 1913 to over eleven thousand mines in the year 1920.

The conclusions seem irresistible:

a. That the supply of coal is practically inexhaustible; that it is stored in the ground and will remain there free from destruction until it is removed by man and transported to the market.

b. What has been said of coal is true of no other product. The oil fields are apparently being rapidly exhausted; there is seemingly a limit to the amount of ores readily accessible to the miner's pick; but whatever the facts may be with reference to mineral deposits it is certainly true that of none of the things produced by man can it be declared that a time of shortage or famine may not come. To illustrate, no matter how much wheat is sown the crop may be a failure; corn and all cereals are subject to seasonal disasters; live stock may be swept away by a plague; none of these things can be stored or kept for a great length of time.

c. Bituminous coal, according to the evidence, has not been monopolized. And, as I have said, because of its wide distribution and widely scattered ownership, it will be very difficult, if not impossible, to ever bring it within monopolistic control.

We have, then, a condition which only demands that the coal shall be taken from the ground and delivered

to the people. If that is done at a fair and reasonable price, the problem is solved.

3. It is alleged that coal prices have advanced enormously; that this must be the result either of a combination among the great coal operators to raise prices or of a practice by these operators, without combination, of charging excessive prices; in a word, of profiteering upon the public.

The first part of the proposition stated is already answered. It remains to determine whether the advance in the price of coal can be charged to the rapacity of the great mine owners.

As to the above charge, it is sufficient for the present to say that the evidence shows that during the war, while under governmental control, and later when under private control, some of the large coal mines were operated at profits somewhat higher than the profits during normal times. The evidence, however, does not demonstrate that the profits were anything like as great as those gained in many other industries. While these increased profits had an effect upon the price of coal, nevertheless it was shown that the increase of profits was only one of the small elements contributing to the enormous advance in the price of coal.

4. Let us calmly and dispassionately endeavor to analyze the reasons which lie back of the fact that the coal consumers have in recent years been obliged to pay high prices for coal. Perhaps we shall be aided in this task by the process of elimination.

The difficulty, as I have shown, does not lie in the shortage of supply in the earth. That supply is inexhaustible.

It is not to be found in combinations between the mine owners. That, I think, I have already demonstrated.

It is not to be found in the fact that there are not enough mines already open, for the evidence shows that if the mines which are already open were worked throughout the year at from 60 to 70 per cent of their

capacity they would produce all the coal we use in the United States, all that is demanded for foreign shipment, and that a vast surplus would be accumulated.

It cannot be charged to a shortage of labor. The evidence shows that there are enough coal miners in the United States so that if they were regularly employed and worked on an average of not more than twenty days a month they could produce more coal than would supply the demand.

It cannot be charged to strikes. The evidence on this phase of the case rather astonished me. Of course, every coal strike has interfered to some extent with the production of coal; but, according to the evidence, the deposits are so great and so widely distributed that no strike has limited the supply of bituminous coal sufficiently to create a real shortage. This is true, because the mines not embraced in the strike area, if properly run, will supply the entire market.

It should be understood that what I have said applies to bituminous coal. Anthracite coal presents an entirely different problem.

Notwithstanding the foregoing eliminations, it still remains true that there have been coal shortages, inevitably accompanied by high prices.

What are the Causes of Coal Shortages and Accompanying High Prices

The answer to the question demands a brief review of coal history. It is the undisputed evidence of the government's own experts that there never was a shortage of bituminous coal in the United States until the European war broke out; that up to that time coal was delivered at the mouths of the mines at very low prices. Indeed, these prices were so low that the Chief of the Geological Survey, a government witness, testified that prior to the war he had been an advocate of government control not for the purpose of lowering prices but for the purpose of raising and stabilizing prices.

What Caused the Shortage After the War Began

The answer is found in the testimony of substantially all of the witnesses. First there came an increased demand for coal, due to the great activity in manufacturing, industry, and transportation. But all of the credible witnesses declared that the capacity of the mines, including labor, was sufficient to have more than met the increased demand. We must therefore seek elsewhere for the cause of the coal shortage.

The cause is found in the fact that "there was not available a sufficient supply of cars to receive and haul the coal from the mines to the points of consumption."

The outbreak of the European war affected our entire economic situation. Immense orders were placed for all kinds of American products. This threw upon the railroads an unprecedented burden. There was an insistent demand for cars and engines to take care of the magnified volume of traffic. The main lines and sidetracks of the railroads were insufficient. Congestion resulted, which tied up tens of thousands of cars. In consequence, the railroads were unable to supply the mines with the necessary cars into which coal could be loaded as mined. Likewise the railroads were unable to transport promptly and efficiently the cars already loaded.

Mines to Produce Must Have Cars

Mines cannot be run efficiently unless they are constantly supplied with empty cars. If the cars are not at the tipple in the morning, the mine does not operate that day. It resulted, speaking broadly and generally, that from a period beginning shortly after the war broke out in Europe and continuously until a few months ago there was a constant shortage of cars at the mines and continued congestion upon the railroads. Accordingly the mines were frequently closed down; labor was thrown out of employment; the production and delivery of coal restricted and a genuine coal famine was created.

But the undisputed evidence shows that at no time, even after our entrance into the war, would there have been a coal shortage had it been possible for the railroads to have furnished the coal mines cars to be loaded and in turn to have transported the coal promptly to its destination.

The chief cause, therefore, of the coal shortage is found in the single fact that the coal could not be mined because there were not sufficient cars, and that the cars already loaded could not be speedily transported to the various parts of the country.

It should be said in all fairness that the car shortage and transportation difficulties were accentuated at various times by certain interferences, to some of which I now direct attention:

a. Certain officials of the government informed the public that the price of coal would be reduced and substantially advised the withholding of orders and purchases. It being true that a fixed amount of coal would be needed to meet the demands of the year, it followed that a reduction of orders at one period of the year would mean increased orders and increased burdens on transportation at some other period. Accordingly the mines and the railroads were called upon to perform within a period of a few months the work which should have been spread over the entire year. The result, of course, was disastrous.

The circumstances just detailed afford one of the many illustrations demonstrating the inability of government agencies to conduct the business of the people of the United States.

Effect of Government Interference

b. At one time a very acute shortage of coal was accentuated by an order of the Interstate Commerce Commission commanding the railroads to withdraw a large number of coal cars from the coal business and employ them in transporting other products. This fur-

nishes a second illustration of governmental incompetence in business.

c. The government took control, to a very large extent, of vessels engaging in transporting coal. Freight rates were advanced to an almost prohibitive point, with the result that for a time that part of the country obtained its coal supply partly by rail and partly by water. An undue amount of coal was sent by rail in order to secure the more advantageous rates offered by the railroads, then also under government supervision. In consequence the railroads were totally unable to take care of the increased burden cast upon them and an appalling condition resulted in the part of the country referred to. This is a third illustration of the inability of the government to conduct the business of the country.

d. A switchmen's strike at one period tied up a very large number of cars, made it difficult to keep freights moving, and for a time contributed largely to the coal shortage.

It will be observed that all of the foregoing interfering causes of the coal shortage, save that mentioned last, merely contributed to and were a part of the one great interfering cause, to wit, shortage of cars and transportation.

Shortage of cars and transportation facilities being then the cause of the coal famine, we must find the remedy in the removal of that cause.

The problem is not without its difficulties, but it is capable of solution. We should simply see to it that the railroads are required to furnish upon demand all cars required to keep the mines in operation, and to transport the coal promptly to its destination. The government has the power within the limits of the Constitution to require this service from the railroads. It may be that the railways will find the immediate increase in equipment difficult. However that may be, it is not comparable to the suffering and loss caused by a coal famine. The cause of the difficulty having been ascer-

tained, we should direct our efforts toward a removal of the cause, even though some hardships may be entailed upon the railways, or even though the government should be required to temporarily advance the required moneys.

THE COAL STRIKE[1]

In any consideration of the present strike of coal miners, discrimination should be made between the positions of the anthracite and bituminous miners. The discrimination will refer to the underlying conditions in the two branches of the industry which I outlined in my address at the joint meeting of the institute and the society in February last, *viz.*, the bituminous coal mining industry is over-developed and over-manned, while the anthracite industry is not so. The anthracite miners are now out on strike without any just grievance; while the bituminous miners are the victims of conditions which give them grounds for complaint, although they neither understand what are those conditions nor are they proceeding in the right way to correct them.

The position of the anthracite miners is simple. Constituting a strongly unionized force in the production of an essential commodity, they are endeavoring to retain their war scale of wages at the expense of the public in general, which means at the expense of all other groups of workers. Their retention of an inflated wage scale for so long has been due to the exclusion of competition by a monopolistic labor union and the vicious system of long-time contracts between it and the mine operators. These influences have been powerful in retarding the deflation of the cost of living in general.

In the course of the present controversy, there is being promulgated, as a matter of course, all kinds of statistics that becloud the issue. There is no denial of the fact that the cost of anthracite coal to the consumer is very high; nor can there be any denial of that, for it

[1] By W. R. Ingalls. Mining and Metallurgy. 3 : 1-3. May, 1922.

is self-evident to everybody. The labor leaders claim, however, that this is because the operators pile on their profits and that reductions in price ought to be made out of them. We engineers know that there is no merit in that condition, but there is no use in discussing it for, after all, it is merely a begging of the question. The real point at issue is more fundamental, and it is this: up to 1920, and inclusive of that year, there was annually an increase in the national income until it become about double what it was in 1911-14; but in a general way this was only an increase in inflated dollars and not in quantity of production. The share of labor, expressed through wages, increased in the same way, in the same inflated dollars, but rather more in proportion; for labor's share in the total produce of industry rose from about 70 per cent to upward of 75 per cent.

These statements are of economic fact as nearly as anything of their nature can be, for they follow the recent report of the National Bureau of Economic Research, in whose directorate the labor organizations are represented and to whose findings the labor representatives assented and concurred.

Since 1920, the business of the United States has experienced drastic deflation. The national income in terms of dollars in 1921 was very much less than in 1920 and probably the present rate is still lower. The anthracite coal miners have retained, however, and are now seeking to maintain, and even to increase, their own inflated scale of wages.

It is not merely the anthracite miners who have done this, but it is also substantially the accomplishment of every group of labor that is strongly unionized. Among the great groups of this class, generally speaking, there are besides the anthracite miners the railway men and the builders. In the broad division of the produce of industry, labor as a whole has already deprived property

and management of more than its proper economic share and has done so at its own peril; but that is not a subject to be entered into here. The immediate consideration is this:

With a diminished national income and with nothing more possibly to be abstracted from the share of property and management, of what remains a few groups of labor can maintain their own income upon an inflated basis only at the expense of all other groups of workers, *i.e.* the public in general. The distress of the farmers and the high degree of unemployment among factory workers are directly due to this.

The anthracite miners are merely a symbol of this broad issue. If they can maintain their position by virtue of their monoply of the labor of an essential industry, the other perfectly unionized groups can do the same thing and all hope for the readjustment to the conditions of normality which must be accomplished before we can look for a return of general prosperity must be abandoned. We should, then, simply have to face a new condition of economic life with grave portents of evil.

The anthracite operators therefore owe a great responsibility to the public in fighting this thing through to the end, and the public owes to itself the obligation of supporting the operators and putting up with such inconvenience as may ensue. I am not sure that either the operators or the public appreciate their responsibilities, in the present juncture, and particularly the public which has the most directly at stake. If the public knows what this fight means, it will not let the operators consent to any compromise. I doubt whether the reductions in wages that the operators have proposed be sufficiently sweeping. Anyway, I feel sure that agreement with the unions upon any long-time contract, even for a year, is contrary to public policy. The very fact that the anthracite coal mining industry is closely controlled both by the operators, who are few, and by the union, which is

only one, makes it easily possible to effect a compromise between the two parties upon a wage scale running for a long time, a system which embodies the vicious principle of "cost, plus." The plain necessity is that the public must have cheap anthracite, must have it as cheaply as in 1914, or thereabouts, and must get it on that basis as quickly as possible. I should like to see the operators take the position of "No contract and open shop," and if things lead to the downfall of the union, let that be.

The situation in bituminous coal is different in many elements. The bituminous coal mining industry is overbuilt, over-manned, is only partially unionized; and it is subject to the competition of foreign coal and also of petroleum. Anthracite mining is an industry that is subject to seasonal fluctuations but on the whole it functions fairly well. Not so with bituminous mining, which is not only subject to seasonal fluctuations, but also functions very badly. This has been the subject of much study, particularly by this institute, which considered the question at length at its first meeting in 1920. Mr. Hoover, who opened the discussion, pronounced the correction of the evil to be solely an engineering problem, but I am inclined to think that that idea is only partially correct. The evil finds expression in the condition that the personnel attached to this industry habitually finds employment for only a small portion of the working days of the year. In this the workers find a just ground for complaint. Their own naive solution is to establish a thirty-hour week, which would tend to equalize the opportunity to work. If, in addition thereto, everybody could draw the pay corresponding with a forty-eight-hour week all would be happy. The trouble with this idea, of course, is that the public would have to pay a large body of men for doing nothing during a large portion of their time, which would be expressed in costly coal.

One of the reasons for the irregularity in the employment of bituminous coal miners is the variation in the

demand for coal at different seasons of the year. The unsteadiness of the load factor that is thus put on the mines unbalances the railway car movements and thus troubles are intensified. The engineering solution of these difficulties is to interpolate storage reservoirs between production and consumption, whereby the mines may produce regularly and over-demands or under-demands may be adjusted by means of the reservoirs. Storage facilities necessitate a large capital outlay, however, and there must be adequate inducement for its provision, which the present economic system does not offer.

Underlying all of this, there is the purely economic condition of chronic over-development of the industry. There are too many mines opened and staffed. All of them cannot sell coal to their maximum capacity or even to the needful capacity for efficiency in operation. This is well recognized and various remedies are proposed, such as modification of the Sherman Law to permit pooling arrangements, state regulation, governmental control, etc. The best of these would be futile. The worst of them—nationalization—would be ruinous. The simple remedy is to remove restrictions and give play to the natural laws that will lead to the survival of the fittest. One of the restrictions to be removed is the union, with its general wage scales and its destructive influence upon efficiency. The United Mine Workers itself is one of the greatest factors in maintaining the deplorable state of affairs in the bituminous coal mining industry.

Obviously, the true economic solution of the proper functioning of this industry is the concentration of production in those mines which can produce most efficiently. They should have such freedom in their operations as to permit them to make such reduction in price in times of slack demand as to induce people to provide intermediate storage capacity. Any hampering restrictions, either of labor unions or governmental interference,

should be abolished. I do not think that there are any halfway measures between this program and the methods at present existing.

Such a program of economic freedom would lead to the extinguishment of a good deal of capital invested in the superfluous mines, but, as a matter of fact, it has already been economically extinguished although it may not yet have been written off. It would also mean the transfer of the superfluous coal miners to other industries, and there should be governmental assistance in bringing that about. Such work would be a true function of the Department of Labor.

There are at least two other needful things. One of these is the formation among the coal producers of an adequate statistical association, in order that they may keep themselves constantly informed as to how things stand. The other is improved legislation among the states for safeguarding the workmen against accidents. I believe that the United Mine Workers has been instrumental in bringing about the correction of some evils of that nature, and this is the only useful function that that organization has ever performed, so far as I am aware.

With the elimination of the small, inefficient producers, physical dangers also tend to disappear, for the large producer does not want to have accidents and takes measures to avert them. However, as a matter of policy this should not be left in the hands of the operators alone and the function is properly a matter for attention by the state under its police powers. The coal mining states already have legislation looking toward that end but it should be made more effective and should be on the lines of the recommendations of the committee of consulting engineers of the United States Bureau of Mines, as given in Bulletin 75 thereof, which would fix responsibilities on the miners as well as on the operators and would make both parties subject to penalties.

I am well aware that these several measures would be resisted by the miners. The latter do not want to be subject to any penalties, not even when they relate to their own well-being as a class, and their union supports them in their spirit of disorderliness. Nor would the surplus of miners kindly consent to being transferred to other industries, for in spite of the popular opinion to the contrary, coal mining is not a particularly hazardous occupation and, in general, is rather pleasant. The coal miners want to be coal miners, but that is no reason why the nation should support more coal miners than it needs.

However, the present strike of the bituminous miners is not going to lead immediately to any such correctives as I have suggested. In its immediate issue the same questions of deflation are involved as pertain to the anthracite industry. The difference in the position of the two industries results simply in the anthracite workers having been able to keep their war scale of wages and get it for work done, while the bituminous miners have kept it, but only nominally; in other words, they have not been able to cash in because there has not been enough work for them. The work has gone to the non-union fields where the miners have been willing to accept less.

While the present contest is not going to result in any early correction of fundamental evils, the operators in this branch of the industry also owe it to the public not to make any concessions. American industries are bound to have cheaper coal. If there be any agreements with the miners they should be by districts only and in conformity with the conditions peculiar to each, and they should not be for any specified times. The check-off should be abolished. If the result should be disruption of the United Mine Workers, that would be both to the public interest and also to the interest of the miners themselves.

SHALL OUR COAL MINES BE NATIONALIZED?

As a socialist, during many years I advocated nationalization of all mines and their control and administration by the government, with some sort of arrangement for actual management by a body representative of workers, consumers, and government. I have opposed syndicalism and its variants, including guild socialism, because, in the last analysis, they all placed a dangerous power, the control of a great basic industry, in the hands of a group or class, and thereby enabled that group or class through that control, to dominate the life of the nation. It has been my belief, an important part of my faith, that a machinery could be developed which would make it possible to obviate this evil and to attain essential industrial democracy. That this result would not, and could not, flow from mechanical arrangements alone, but involved great spiritual advances, the attainment of a collective consciousness, and conscientiousness, seemed to be obvious enough.

I have to admit that my belief in all forms of nationalization has been so strained that it has become a tenuous thing at best. The collectivism of the war and postwar periods has forced me to admit great disillusionment, to say the least. Wherever one turns for examples, the extensive experiments with nationalization, the substitution of governmental for private or quasi-private capitalist enterprise, show no results which can be regarded as encouraging or assuring. Everywhere one sees inefficiency, waste, retrogression. Our own experiences with the railways was not entirely typical; it was an episode of brief duration, and throughout there remained in force limitations which would not have endured as part of a permanent policy and the like of which are not found

[1] By John Spargo, author of Socialism: A Study and Interpretation of Socialistic Principles; Karl Marx, His Life and Work; Marxian Socialism and Religion; Applied Socialism; Substance of Socialism, Syndicalism, Industrial Unionism, and Socialism; The Psychology of Bolshevism, etc. Outlook. 133 : 578-80. March 28, 1923.

in the more extended experiments of European nations. The limitations referred to operated as protective devices; they limited the amount of harm to our transportation system and to our economic life which the experiment could produce. Making every possible allowance for the circumstances in which that experiment took place, I am bound to believe that the sum of the results attained can only be regarded as a warning against further adventures in the same direction. Government operation of the railways was characterized by incredible ineptitude, by failure to make the most elementary provision for the continuous development of the transportation system, and by the most wanton disregard of the larger social interests when immediate political expediency called for the sacrifice of these.

We saw nationalization at its worst in Europe. Long before the war there was serious questioning of the claims made for nationalization by its advocates. Government ownership and operation seemed to retard developmental progress. It seemed also to be inseparable from a formidable mass of "red tape." Somehow the institution of a frank and candid comparison of governmental enterprise with the most advanced capitalistic enterprise in the same country invariably showed that in the latter the introduction of new methods, the elimination of old abuses, and, in general, the constant realignment of the industry or business to correspond with human necessity was much easier than in the former.

But perhaps the post-war period has provided the better test. In country after country an unprecedented amount of nationalization of industrial enterprise was developed during the war, and of course inherited by the post-war governments. It will be freely admitted, I dare say, that the great incentives of humanity and patriotism have existed in this period to a far greater extent than in normal times. The economic structure of every nation has been strained; in not a few instances the national existence has been seriously menaced; mil-

lions have been reduced to poverty and destitution, and famine has stalked through the streets. If in such conditions public service is not thoroughly infused with humanitarian and patriotic zeal and governmental agencies cannot be made to give maximum returns—if, especially, governmental enterprise manifests the evils of bureaucracy, group action against the common weal or at the common expense, and less efficiency than private enterprise, then judgment must be rendered against it, quite regardless of alluring theoretical defenses.

Despite the religious fervor of communism and the fact that the peril of the nation was so great, if we are to believe the testimony of the leaders of the soviet government of Russia, governmental enterprise in that country has been characterized by malingering, corruption, grafting, nepotism, group conspiracy against the public, to an extent that is almost incredible. When all possible allowance is made for the incompetence manifested upon every hand—which was natural and inevitable in the circumstances—it remains the fact that the other evils above enumerated point to the moral weakness of government ownership—unless and until the citizenry itself has attained a high degree of socialization, both in its thinking and its conduct. Why expect the stream to rise higher than its source? If government ownership of railways cannot be kept free from corruption, from malingering, and from wastefulness when the officials are spurred by the thought that the actual existence of the state is at stake, what hope can we entertain that it would be better in days of fatness and opulence?

In Russia, too, as in every other country where nationalization has been tried upon a large scale, an appalling amount of bureaucracy has resulted. The same phenomenon is perhaps the most striking of all the phenomena encountered by the traveler in Germany. We saw in this country during the war how rapidly governmental agencies grow, increasing their staffs—and their pay-rolls of course—and how difficult it is to lessen them once

they have been permitted to develop. I do not doubt for a moment that 40 per cent of the employees of our government at Washington could be dropped with a proportionate gain in efficiency—could be, that is, were it not for the fact that politicians fear nothing so much as the bureaucracy which at once serves and masters them.

In view of their experiences, we can hardly wonder that the nations which have most tried nationalization are least enamored of it and are steadily abandoning it. Italy begins her economic rehabilitation by abandoning nationalization in favor of capitalistic enterprise within proper regulations. Russia, it is hardly necessary to point out, is going the same road. So, too, must Germany.

The tentative scheme of the Nationalization Research Committee of the United Mine Workers of America for the nationalization of the mines of the country is perhaps as good an outline as has yet been presented. Thus far of course it is only an outline; details are lacking, and it is possible to speak of it only in these general terms. The proposal has at least the merit of placing the subject in concrete form for careful discussion. I do not find in the scheme any safeguard of the public, the average family, against oppressive group action by the miners and the political appointees who are to constitute the administrative council. Nor do I find in the entire outline as presented on behalf of the United Mine Workers, sponsors of the scheme, any suggestion of providing any protective device against the rapid and ruinous increase of bureaucracy, the horde of useless employees and "seat warmers" experience teaches us to expect and fear.

My principal fear, however, and my present objection to the scheme are based upon quite different grounds. In my judgment, any plan of nationalization—meaning the substitution of governmental for private enterprise—runs directly counter to the sum of available experience. Unless I misread the signs of the times, the great need of the world, the fundamental requisite for economic reha-

bilitation, is a vast strengthening of the capitalist system of the several countries. This requires a tremendous augmentation of private enterprise and the incentives to such enterprise. It requires a great strengthening of faith in the security of investments and the opening up of all possible channels for investment in productive enterprises. It requires the development of a vast army of investors in every country. The plan of the mine workers' committee, in its essence, is directly opposed psychologically and economically to the needs herein outlined.

I will go further, and say that any great and far-reaching experiment of this character should be resisted at this time, not so much on account of its merits, as because the world is obviously in no state to embark upon such experiments. We need stabilization and recovery, and these as speedily as we can. The economic fabric has been sorely strained, almost to the point of entire destruction. Any such program as that proposed by the United Mine Workers would, if serious attempt were made to carry it out under present conditions, add a new strain at a most critical time. We are told that the purchase of the coal mines would involve immediately an expenditure from the public funds of $4,500,000,000. My personal guess (it is hardly more than that) is that $6,000,000,000 would be nearer the mark. And this expenditure is seriously proposed at a time when the lessening of public expenditures, the most drastic reduction of the budget, is obviously one of the prime requisites of sound policy for the nation. But of course we should hardly be entered upon the purchase of the mines by the government and the governmental direction of the mining and distribution of coal when we should be forced to recognize the close interrelation of the mining industry and railway transportation. This interrelation the leaders of the United Mine Workers already see and note They are not advocating nationalization of the railways as an essential part of their plan, but it is obvious that it

will be found to be so. So to the billions required for purchase of the mines we must add more billions for the purchase of the railways.

To supplant the customary private initiatives and incentives and replace them by those of governmental agencies over such a large and vitally important part of our economic life must of necessity involve a tremendous amount of readjustment; and this cannot be effected without serious disturbances. Under the most favorable conditions this disturbance would be a serious matter; under prevailing conditions it might well be disastrous. Quite apart from the question whether our experience with government operation of the railways justifies the hope that government ownership and operation of mines and railways would lessen our troubles, is this fundamental question which I have barely outlined.

Under the tentative scheme presented by the committee of the mine workers, the President would appoint rather more than half of the members of the council of administration of the coal mines. The rest would be elected by the miners, engineers, and so forth. Presumably, the Constitution of the United States is to remain in force, and the whole would be subject to Congress. It does not seem to be a wholly groundless fear that this would inevitably bring about a dangerous subordination of industry to politics. Presidential appointees may be—and almost inevitably will be—politicians for a long time to come. And Congress will continue to be composed of men and women who are more intimately familiar with their own political interests, and far more concerned about them, than with fundamental economics and the public interest. Imagine this condition arising: Expert survey of the field of the industry shows that mining in a certain district should be given up as wholly unprofitable; the standard, legalized wage cannot be paid, with coal at the standardized price, without a deficit, which must be made up by subsidy from the general income of the industry—in theory, but more likely from tax rev-

enues. There is no advantage in maintaining this district as an active mining area. It is therefore proposed to give it up. But there are thousands of miners there who are content to go on, leading a partially parasitic existence. Can you imagine the miners' representatives upon the administrative council or the majority of the President's appointees resisting the protest of the miners whose jobs are threatened? Can you doubt that Congress would be influenced by the "miners' vote?" Can you doubt the resistance to the introduction of devices and methods which would make it possible for a smaller number of men to mine a larger amount of coal by every part of this tremendous political machine?

No, the plan offers no present relief from the evils of the existing methods of producing and distributing coal, bad as these are. It simply invites us to jump from the pan into the fire. It opens the way for an appalling amount of wastefulness and extravagance, and for such a vast horde of government employees, personally and vitally interested in getting from a basic necessity of life upon which we are all dependent as much as they can, that its rapid evolution to the position of a dominant group, or *bloc,* having a strangle-hold upon the national life is as easy to see as it is terrible to contemplate.

At much greater length than I intended, though still inadequately and in the sketchiest manner possible, I have outlined my major reasons for opposing the plan of the United Mine Workers. It is impossible to ignore the fact that such destructive criticism may well be met with the inquiry, "Well, what else is there that is more promising?"

That question I should like to answer in detail, if I possessed the requisite detailed knowledge of the industry itself. That it can be answered I am confident.

That there are too many mines is alleged, and appears to be a fact. If this is an important cause of irregular employment, long periods of idleness and the consequent necessity of high tonnage cost for mining,

which in turn reacts against the consumer, that is a condition which is much more likely to be remedied by the industry itself than by any governmental agencies or legislative devices. Anyhow, that is the first thing to try. Pooling the products of unprofitable mines and the products of profitable mines may be practicable under private ownership, by means of averaging, without injury to anybody, and even with advantage all around. But such pooling under government auspices is quite another matter and involves the opening of the floodgates for a ruinous torrent of waste and corruption. The creation of adequate storage-places for domestic coal in the neighborhood of our cities, at least for adequate reserves, is not an insuperable task for private or municipal enterprise, or a combination of both, one would think. A zoning system which would do away with needlessly excessive haulage by insisting that the products of a given territory shall be distributed in the most economical manner at the nearest, instead of the farthest, points of consumption could be worked out by competent engineers, thus greatly lessening, and perhaps doing away with, the ancient trouble of car shortage. Incidentally, it would greatly lessen transportation charges. Finally, economic pressure alone, or economic pressure plus legislation, could surely compel the large industrial users of coal, and especially the seasonal users of coal, to lay in their supplies, or a large percentage of them, before September first, thus regularizing and standardizing the movement of coal and making continuous operation possible.

These are but hints of the scope of the investigation that the United States Coal Commission which is now at work should be expected to make, and of the lines upon which, as I believe it is possible for the industry to be brought out of its present admittedly anarchistic state and into a proper relation to the public and its needs.

For the present at least, I am free to say that I can see no hope of anything good or useful to be attained

by any such extension of the power of the government and its preponderance over the economic life of the nation as has been suggested. On the contrary, the sooner we can lessen those powers, reduce the size of our government machine and its interference with the economic life of the nation, the better will it be for all of us.

NATIONALIZATION OF MINES AND MINERALS[1]

Advantages of State Ownership of Minerals

Advocates of the advantages that they consider would accrue from state ownership of mines do not usually make it clear what proportion of these benefits would be derived from the nationalisation of minerals as apart from that of the mines. It may be taken that, briefly, the list of advantages would be set forth by them somewhat as follows: 1. Less waste of valuable coals; 2. lower cost of production; 3. cheaper coal for the consumer; 4. conditions of employment improved, and wages higher and steadier. If any or even a reasonable proportion of these advantages could be secured by a state ownership of minerals, there would obviously be a strong case in striving for such ownership, and particularly if the conditions of mining labour could thus be improved would the proposition deserve most serious consideration. Unfortunately those who advocate state ownership advance no facts in favour of their theories. Now in a subject such as this, one ounce of fact is worth a ton of theories, and the writer will accordingly content himself throughout this portion of his subject with simply showing that whilst we are promised that all these beautiful things would follow upon state ownership of minerals, as a matter of hard, solid incontrovertible fact not a single one ever has so followed.

[1] From article by Henry Louis, Professor of Mining, Armstrong College, Newcastle-upon-Tyne. Iron and Coal Trades Review. 88 : 348-50. March 6, 1914.

In Germany, France and Belgium, as everyone knows, the state is the absolute owner of the coal resources. The waste there is fully as great as with us, prices to the consumer are higher, their accident rate is about as high as our own, strikes and other disturbances are frequent and usually more severe than with us, and in addition to all this, in every case wages are lower and conditions of employment are worse. In the face of these facts, which anyone can verify for himself, how is it possible to assert that state ownership of minerals in this country would bring forth those benefits which we know positively to be non-existent in those other states which do own their coal? Surely we in Britain are not such fools that we cannot learn something from the experience of our neighbours, but if advocates of state ownership prefer to close their eyes to what is taking place abroad, they can surely not refuse to consider what is happening at home.

In Northumberland and Durham there is a certain amount of publicly-owned coal, that is being worked. In the first instance, the Ecclesiastical Commissioners are large royalty owners; that is to say, we have here a public body, which though indeed not the state, is in a sense a department of the state, and which, if it handed its coal property over to the state, would have to receive in return from the state an equivalent revenue derived from taxes or other means. This public body, however, leases its coal in exactly the same way as any private royalty owner would do, charges at least the same royalties, and asks for conditions in all respects similar. The coal owned by this public body is not sold to consumers any cheaper than the coal worked on the lands of private royalty owners, nor are the men who work the coal paid in any other way. However, if it is objected that this is not really state-owned coal, the same cannot be said of the very considerable quantity of undersea coal that is now being wrought.

The Crown is the absolute owner of undersea coal,

and is therefore in precisely the position in which the Miners' Federation desires to place it in respect to all coal, yet here again royalties are the same, the price of the coal to the consumer is the same, and the miners are paid just the same wages as in the case of coal owned by private individuals. Perhaps a still better example is to be found in the case of the Forest of Dean, which is practically wholly state-owned, and from which we can see exactly what would happen if such ownership were extended to all the coal fields of the country. In this state-owned coal field not a single one of all the advantages which are claimed for state-owned coal fields is enjoyed. Royalties are, if anything, a trifle lower in this coal field than the average of the country, consumers are in no way favoured in prices, and above all, the wages in this state-owned coal field are among the very lowest in England. Here are hard facts which anyone can check for himself, and in the face of these very definite facts in our one state-owned coal field, how is it possible to assert that mere multiplication of such coal fields could bring about an entirely opposite result? With such a body of facts before us it is surely not too much to say that experience has demonstrated conclusively that the state ownership of minerals is not attended with any one of the advantages which are claimed for it.

Before leaving this portion of the subject attention may be drawn to a very significant fact. As already pointed out, some nations have retained the ownership of minerals in their own hands, others have seen fit deliberately to alienate these rights. It is a curious fact that in all the states which have pursued this policy of alienation, *e.g.* Britain, United States of America, etc., the wages of miners are without exception higher than they are in states like Germany, France, Belgium, Spain, which have retained their ownership of the minerals. The writer is not prepared to assert that these two facts are necessarily connected as cause and effect, though they very well may be; but the coincidence, even if it be noth-

ing more, is a very striking one, and should give pause to those who are striving for the state ownership of minerals, under the idea that it must necessarily bring with it an increase of wages to the miner.

State Ownership of Mines

Turning next to the nationalisation of mines, by which is here understood the acquisition and actual operation of mines by the state, the proposition is a wholly different one from that of the nationalisation of minerals. The latter, as we have seen, is a sound and equitable principle wherever the state has not actually parted with its mineral rights, but the former is essentially unsound and productive of no advantage to any party concerned. It may well be doubted whether the nationalisation of any industry whatever is advisable, but even although a reasonable case might be made out for some special industries, it is surely obvious that the mining industry, the very nature of which demands individual initiative and enterprise and the readiness to incur highly speculative risks, is of all industries the least suitable to the red-tape control of a state department. The Miners' Federation proposes, now that so many of these big risks have been taken, more or less successfully, by individuals, that the state should coolly step in and annex the benefit of their shrewdness, foresight and enterprise, but, apart from all ethical considerations, such a scheme must defeat its own objects, seeing that the life of a mining industry, which hesitates to incur any speculative risk, must of necessity be a short one. Surely the recent lesson of South Africa cannot have been entirely lost upon even the most case-hardened advocates of the nationalisation of industries. We have there seen that a general strike was proclaimed solely because the managers of the state railways found that certain departments were over-staffed, and they wished to cut down the number of men employed in proportion to the work that there was for them to do, and this wholesome and necessary administrative measure

was actually held to warrant a general strike. Is it possible to imagine a mining industry, which is necessarily subject to greater and more abrupt fluctuations than ordinary industries, being carried on successfully under such conditions? It would be really difficult to find a stronger argument against industrial nationalisation than has been provided for us by the South African railway strike.

As before, the writer proposes to confine himself mainly to the question of the nationalisation of collieries, not because the nationalisation of metalliferous mines does not provide arguments at least as strong as those adduced in favour of his case against the nationalisation of collieries, but because argument has hitherto centered mainly round the coal mines.

The events of the past week must have afforded food for unpleasant reflections to the advocates of governmental interference in mining matters; on the one hand, we find the Labour members in the House of Commons moving an amendment to the address on the ground that all the meddlesome legislation of the last three years has not resulted in any increased degree of safety to miners, and on the other hand we see that this same meddlesome legislation has resulted in London contracts for a million tons of coal, that used in previous years to be supplied from British coal fields, being placed in Germany, solely because the price in Germany is lower—a clear loss of at least £300,000 to the wage-earners in our British collieries. If legislative interference can work so much damage to the coal trade and to coal miners without any corresponding advantage, how is it possible to contemplate a complete governmental control of collieries with any feelings other than dismay?

As before, the writer proposes to discuss the subject in the light of actual experience, but before doing so, there is one argument that has been used by advocates of the nationalisation of mines to which the writer proposes to devote especial attention, because to pass it over in

silence would be to tacitly acquiesce in a very unjust charge against a body of men who have upon the whole deserved well of the community. It has been argued that the nationalisation of mines would confer a greater measure of safety upon the miners employed therein; this argument can only be taken to imply that colliery proprietors are negligent in providing for the safety of those engaged in their mines. The writer has no hesitation in maintaining that, taken as a whole, colliery proprietors are devoting the utmost care and attention to this very important subject, and shrink from no expense that will make for increased safety. He is quite prepared to admit that all collieries are not perfect, that there would always be a small minority that fall short of the standard of safety set by the best, and that it is only right that legislation should, as it actually does, enforce upon these defaulters the obligation of conforming to a proper standard; but sound mining legislation in this country has never done aught else than render compulsory the measures for safety already adopted voluntarily by the better organised collieries. Measures for the avoidance of colliery accidents have always been based in the past upon the investigations carried on by private colliery owners, whilst the state has done nothing. Safety lamps, safety fuses. Sprengel explosives, electric shot-firing, the use of stone dust to prevent coal-dust explosions, the remedies for gob fires—all these are striking examples of provisions for the safety of miners, the investigation and adoption of which have been due solely to private initiative, based upon laborious and costly investigations the whole of the expense of which has been voluntarily borne by the colliery proprietors. It is difficult to see how the state could have done more had it been in their place, and we all know that it is highly probable that it would not have done nearly as much. In the face of such a splendid record of results already achieved, it is an injustice to suggest that our colliery proprietors as a whole are in any sense careless of the

lives or limbs of the men in their employ. The writer further maintains that if our collieries were worked by the state, the miners would be exposed to a very grave source of danger, inasmuch as in our party-governed country, they would be even more at the mercy of ill-considered or vote-catching legislation that they are to-day. As an example, reference may be made to the recent enactments for the provision of rescue appliances, due mainly to the influence of popular clamour at the time of the great Whitehaven disaster. The provision of these appliances was made compulsory by law long before the dangers attending their use had been understood (they are not understood properly even today), or had even been investigated, and it is owing to this panic legislation that rescue appliances were forced upon the coal trade that have killed far more men than they have saved, and that we are left today to deplore the loss of so many fine fellows, like our poor Captain Ramsay, whose deaths are directly chargeable to the rescue appliances prematurely forced upon the country merely to satisfy a popular outcry. How much greater the risk would be of such over hasty and dangerous experiments were the mines absolutely managed by a state department, dependent like every other part of our administration upon popular votes, must surely be obvious to everyone. We should be more than justified in opposing the nationalization of collieries in the interests of the safety of our miners, quite apart from all other considerations.

To sum up then the writer's position in this matter: with regard to the state-ownership of minerals, such a system is perfectly equitable and sound, provided always that the state has not already alienated its mineral rights. When it has done so, it would probably be impossible to purchase them back again at a profit that would leave a reasonable margin of profit to compensate for the risk after paying interest on the capital invested. In addressing an Economic Society, it is unnecessary to discuss any less honorable methods of acquiring property. No ad-

vantage of any kind appears to accrue to any one concerned from the state ownership of the minerals.

With regard to the nationalization of the mines, it has been pointed out that this has been tried by a few states, and notably by Germany on no inconsiderable scale, and that not a single one of the benefits claimed for the state management of mines has resulted therefrom. No greater measure of safety for the miner has been attained, wages are if anything lower, strikes and industrial disturbances are quite as frequent, the price of coal to the public is higher, and with all this the taxpayer, far from receiving any advantage, is heavily mulcted to pay for the evils brought about by the state management of mines. That these have been the results it is impossible to gainsay, and in view of these it would surely be the height of madness to attempt in this country to reproduce on a large scale the experiment which bitter experience is shown to have brought so many evils in its train.

FUTURE OF THE BITUMINOUS INDUSTRY[1]

There is an erroneous idea pretty generally accepted as a fact that all coal men are reaping untold profits. Figures compiled by the Bureau of Internal Revenue show that in 1918 something like 22 per cent of the companies mining bituminous coal had net losses, and almost a third of this class showed losses averaging 49 per cent on the capital invested. At the same time 11 per cent had net incomes of less than 5 per cent on invested capital, and averaged but 1.94 per cent after paying taxes. In fact, 40 per cent of the companies had net profits, which, after payment of taxes, left less than 11 per cent on invested capital. Half of our bituminous coal was produced by 62 per cent of companies that either had

[1] From address of Harry N. Taylor, ex-president National Coal Association. National Coal Merchants Association. Addresses. p. 18-20. June 10-12, 1920.

deficits or showed less than 11 per cent in profits after paying taxes to the United States.

The daily press are very prone to call attention to the high prices in spots here and there; but nothing is ever said of the millions of tons of coal sold at low prices, and sometimes even less than the cost of production.

Congress during the past year has given much thought to, and many resolutions and bills have been introducted, having for their purpose the investigation of the industry. Construction, rather than reconstruction, is the great task confronting Congress. There is too much government in business and not enough business in government. Uncle Sam must be pried out of the coal business, the lumber business, the transportation business, and all other business which has been invaded. His right hand must be taken from the throat of private enterprise, while his left hand must be taken out of the pockets of the taxpayers. There is plenty of work for both hands, if employed in the administration of legitimate business of governmental affairs.

Every effort toward government ownership must be discouraged and contested. The United States, under the Constitution, is not a socialistic democracy. It was established, and shall remain, a representative republic. Private capital uncovered and developed the resources of the United States. Private capital opened up to settlement, use and prosperity the places that had been wasted and idle. Private capital footed the payrolls of the laborers who built and ran the railroads. Private capital built and operated the factories. It was the private capital of the farmer that bought and tended the farms and made them productive. Private capital is the foundation and superstructure of all American business. Wages are the biggest bills that private capital pays. The prize for which private capital is competing is general prosperity. It cannot hope to win the race hampered by government control, as a weight on one leg, with unreasonable domination of union labor as a weight on the other.

Organized labor seems to have adopted the theory that to work too hard will spoil the job. Their leaders say: "Why increase production when a shortage in supply is the very thing that keeps business alive?" They further assert: "If you allow an over-supply of commodities to develop, we will at once be thrown out of our jobs." This argument is a fallacy. The fallacy lies in confusing individual production with the production of the plant as a whole. To maintain output during the past four years, coal operators and manufacturers have had to employ more men to do the same work. This means higher costs, first in payrolls, second in additional mining machines, clerk hire and overhead cost. The higher cost is generally passed on to the consumer in the form of higher living expenses. Still the shortage in production continues, so new companies are induced to start mining or manufacturing, sinking new mines, building new plants, and creating what in normal times will be an excess of producing capacity. The effect is plainly seen in the distress of excessive living costs, over-strained credits, and over-expanded business. Increasing individual production is quite another thing.

If each workman, by more effective work, adds 25 per cent to his daily output, he supplies the goods that are needed; but he does not add to the producing cost; in fact he cuts down the cost per unit, for he helps get a greater output from the same mine, the same machinery, the same equipment, without increasing his overhead charges. He benefits himself either through higher wages or by lowering the cost of living to the consumer, of which he is one. He is able to buy more things, and consequently he increases the demand for goods at the same time that he increases the supply and cheapens the cost.

History does not record an instance where business depression was caused by labor increasing its output of goods per man. The unnatural condition forced by the false logic of shorter hours and less production creates a situation of higher cost, which in turn is responsible

for the wave of labor unrest, which again in turn breeds bolshevism. Bolshevism is merely a lazy man's envy of the prosperity of a hustler. The often repeated claim of the socialist that labor creates the world's wealth is another utter fallacy. The wealth of the world has always been created primarily by intelligence. It is the brain of man that leads in production, and not the brawn.

Capital after all is only crystallized labor. Manual labor without guidance and inspiration of brains has never accomplished anything for mankind beyond a bare existence. When the world gets down to work again, we will cure our economic ills.

When men will give a full dollar's work for a dollar's pay, our dollar will buy as much as it ever did. Work will increase production. Increased production is a sure cure for the inflated dollar.

The war regulations forced the coal industry to study cost. This one big lesson should be remembered, fostered and made to grow.

Industry must organize; cost accounting methods must be studied, improved, and, above all, applied.

The man who thinks he can sell coal cheaper than his neighbor is the most dangerous competitor (while he lasts). The man who knows what his coal costs fights for a fair margin of profit, based on a real cost. He is a fair competitor, and he will be one for a long time, because his business, like yours, is built on a rock of proper cost accounting, which will endure.

ATTACK ON THE COAL INDUSTRY [1]

Now it is very important indeed that the public should note that there is no general divergence of interest between the coal miner and the coal owner. Local disputes and subsidiary differences may indeed arise, but essentially their interests are identical. The real con-

[1] From article by Wallace Thorneycroft. National Review 73 : 559-62. June, 1919.

flict of interest is between them and the coal consumer, between them and the householder who wants cheap coal, and the business man who must have it if his enterprise is to hold its own in competition with foreign traders. The only question, therefore, that the public have to ask themselves in this matter is as to whether they are likely to get cheaper coal under the present system—as it existed before government control—or under nationalization.

Can there be any doubt upon this point? Under nationalization we must add to the expenses of getting the coal the salaries of innumerable officials, typists, and clerks, all engaged, as we know is the case, in the government departments created under the rush and pressure of the war, in copying documents in triplicate, and their salaries will be the least burdensome part of the business. I often think, as a business man, that the great feature which distinguishes state from private enterprise is that the ordinary business firm has no room for that strange anomaly called the permanent official. Some permanent officials, let it be said, are able men who earn their money by saving the public thousands of pounds. Others are, not to put too fine a point on it, "duds"; but they are irremovable. I dare say that this is a condition inevitable under the civil service. If an official secures his position by competitive examination or by permanent appointment he must be retained so long as he does not get drunk or is corrupt, or commits some serious and unpardonable transgression. But he may fail in judgment, may commit cardinal errors of administration, may even be dilatory and negligent, may altogether fail when we contrast him with the standard of prompt and ubiquitous efficiency that private business demands, and still his job is his, and he knows it. He cannot be removed. What happens if a great business house, whether in the mining industry or any other, appoints a new manager or director or a new head of a department? What takes place, supposing Messrs. Harrod's or Selfridge's or any other firm you like to mention, open a new department, and place it

under the charge of the best man they can get? They pay him well—liberally. They give him all that he requires by way of an increase of staff or other facilities. So, of course, does the state. But the difference comes in here, that if he fails to make good, if he fails to show a profit on his department, then he is, after a while, incontinently scrapped. Is this so with the state? We know it is not. We know that all the administrative follies and all the departmental blunders committed during the war, all the millions of pounds that have been wasted, and all the thousands of precious lives that have been sacrificed have left the officials still comfortable in their snug jobs at Westminster and Whitehall, drawing their salaries as of yore, and reading, with a disdainful smile, the censures that are poured out on them in the press, censures which are powerless to deprive them of their positions or their emoluments.

Now what follows on this? There is, when the government initiate an industry or control a trade, a lack of that personal responsibility which is vital to the efficient conduct of business. We have delays, postponements, procrastinations, everything but businesslike dispatch and the successful conduct of industry. We read in the papers of thousands of pounds' worth of motorcycles left to rust, so that they become valueless, in Kempton Park. We read that when the genius directing operations at Chepstow thought that enough public money had not been expended by rushing up at breakneck speed a new dock, he thoughtfully blew it up with dynamite. All these things, disgraceful as they are, all this flagrant waste of public money and this abuse of power, can be borne so long as the departments guilty of these transgressions do not control a vital industry.

But coal is a vital industry. It is vital in this sense, that it is the source of heat and power. Without cheap coal we cannot produce cheaply. Unless we produce cheaply, then inevitably we cannot export goods under competitive conditions with foreign countries. Coal,

do not let us forget, enters into the manufacture, the production, and, to a large extent, the distribution of every single article that we consume in England today, from the biggest and best equipped factory to the humblest cottage. It is not only the price of coal that we have to look to, but we have to remember this, that an increase in the cost of coal means an increase in the cost of everything else. The efficient conduct of the coal industry, therefore, is vital—vital to our export trade, vital to the employment of our people, vital to every social reformer who hopes to see an advance in their standard of living, a greater degree of comfort in their lives.

What guarantee have we got, I ask, that the state and its permanent officials, its irremovable mandarins, whose ineptitude, maladministration, and inefficiency the war has made crystal clear, what guarantee have we got that these men, who have bungled so badly in other industrial matters, will succeed when they have charge of the coal trade? There is no guarantee. The nature of the coal industry makes it impossible for us to hope that they will be better when they are dealing with its products than they have been in other departments. Let me point out that men who can efficiently direct all the operations of a concern producing two to five million tons per annum are no very common, even when such concerns are in one district with common customs. It may be answered that we coal owners have now found and now employ such men, and the state can take them over when they take over the mines. That is true. But observe, when they are taken over, when mine managers and mine directors find that their power of making prompt decisions is gone and they themselves no longer in positions from which they may be discharged if they fail to make good, but in permanent positions from which they are irremovable, is it reasonable to suppose that we shall have from them quite the same effort, quite the same efficiency, quite the same attention to business that they now display? And mark, it is not only this generation of mine

managers and officials that we have to consider, not merely the men who are trained in the traditions of private enterprise, whose habit it is to be businesslike and to deal promptly and effectively with matters as they arise, but we must think of the time which would soon come under nationalization when their successors would have partaken of the sloth, the inertia, the dilatoriness inseparable from a bureaucracy. In that hour, if not before, we should assuredly find that the cost of coal had risen, and in that hour, unless I am grievously mistaken, we should find, as the collectivists calculate that we shall find, the demand arising for other industries to be taken over by the state. For those industries, deprived of cheap coal and faced with dear living, would inevitably discover that under the new condition of affairs private enterprise was doomed to failure.

Two other important, but subsidiary, objections I will make. If the state nationalizes coal mines, they must take them all over, good, bad, and indifferent. They will have to compensate private capitalists who have sunk tens of thousands of pounds in endeavouring to make hopeless propositions yield productive coal. But if we nationalize the mines the nation will have to saddle the loss. That is, I think, worth pondering upon.

I am sure that my next point has immense significance for all who realize that not only cheap coal but industrial peace is essential to industry. Today, masters and men, coal owners and coal miners, have an umpire when they cannot agree on terms. The state steps in and adjusts matters between them. But when the mines are nationalized there will be no umpire, because there is nobody above the state, and the state will own the mines. What will happen if they fail to agree with the miners? Will the men be deprived of the right of combination, that is to say, of the right to strike, or will they have it in their power to blackmail the whole community? One

of the two must happen. Both to me seem to spell disaster.

NATIONALIZATION OF MINES IS NO REMEDY[1]

It is frequently urged that the coal producers should store a part of their output at the mines in summer, and thus render the operation of their properties more stable and regular. This proposal has the defect of being impractical. Coal mines are organized, equipped, and operated to send coal forward on a continuous journey from the face of the coal seam to the boiler room of the consumer. The production, transportation and distribution of that coal is obtained at the most economical cost when that movement is uninterrupted. As it comes from the mine wagons underground coal is dumped directly into railroad cars and shipped straight through to the plant or retail yard of the buyer. That is the most economical manner in which the coal can be produced and moved. If it is moved two or three miles from the face of the coal seam underground out into the daylight at the mouth of the mine and there dumped on the ground or put into storage bins, there is an increase in the cost of the coal consequent upon its being placed in storage and taken out again.

There is also a certain degradation and deterioration of the product in storage, so that this stored coal would have to be sold by the producer who had stored it at a higher price than his freshly mined coal, if he is to avoid a loss on the operation. But this stored coal for which he must ask a higher price is a less efficient and less desirable fuel than his freshly mined coal which his salesman can offer at a lower price. If he should attempt

[1] From statement of Mr. J. D. A. Morrow, vice-president of the National Coal Association, to the House Committee on Labor. Investigation of wages and working conditions in the coal-mining industry. Hearings on H.R. 11022, 67th Congress, 2d Session, part 2, p. 526-8. April 20-25, 1922.

to equalize his prices or place a sufficient premium upon his freshly mined coal to allow him to sell his higher cost storage coal at a discount he will merely invite numerous competitors to take his business away from him through their offers of freshly mined coal at prices below his quotations. In short, a producer who would store considerable quantities of his own coal at the mines will inevitably find himself caught between the competition of his own freshly mined coal and his storage coal, and must accept an inevitable loss on the transaction in consequence. No sane business man will attempt any such enterprise, nor would he get any sane banker to finance it, even if he were foolish enough to try it.

The proposal is impracticable for another reason. The mines already open have an over-capacity of approximately 40 per cent. In other words, these mines can currently furnish 40 per cent more freshly mined coal than the country needs. In the absence of strikes at the mines the only thing which has ever prevented the mines from meeting all demands of consumers with current daily shipments of freshly mined coal direct from the mine tipples has been the inability of the railway lines to transport the tonnage demanded by consumers. These consumers have never failed to get their coal because of inability of the mines to produce it, but only through the inability of the railroads to handle it when shipped. Now, if the railroads in time of maximum demand are not able to place railroad cars enough at the mines to carry away the coal they are mining from day to day, what opportunity would a mine operator have to obtain cars to take coal from storage in addition to shipping his usual daily output?

As a matter of fact, there is already a tremendous storage of coal in the United States, not in the mining districts, but where the storage ought to be, namely, in or adjacent to the consuming centers. Consumers and wholesale and retail distributors of coal in the United

States have provided facilities in which they regularly store from forty to fifty million tons of coal annually. Just prior to the signing of the armistice they had stored over sixty million tons of coal, and at the beginning of the present strike they had utilized these facilities to store approximately sixty-five million tons of bituminous coal in addition to the amount upon the docks at the head of the lakes. If the capacity of those docks is included, the total possible storage by consumers and distributors of bituminous coal in the United States exceeds seventy million tons. This is practically all storage by the consumers, who own these great stocks and are, therefore, insured against any raising of prices on this tremendous tonnage. Storage of this kind has developed wherever it is practical; that is, wherever the service to the user of the coal in actual practice justifies the investment and the expense of installing and operating the facilities for storage and compensates him for the deterioration of the coal.

Mr. Lewis seriously proposes that the government should own and operate the bituminous coal mines as a means of stabilizing production and improving the lot of coal mine employees and coal consumers. I shall not burden the committee with a discussion of a proposal so plainly inadequate and impractical. Would the United States government require every household consumer to take in designated quantities of bituminous coal for domestic use at regular times throughout the year whether the consumer wanted that particular kind of coal or not; whether he was willing and ready to pay for it or not, and whether he had the facilities to store it or not? Would they require industrial consumers of coal in periods of business depression such as that which is now afflicting the country to buy the quantities of coal they normally require, in order that the mine employees may have work regardless of whether the factory could use the coal or not? If the mines are to be stabilized by this

process, the consumer of coal will soon beg to be nationalized in self-defense.

With reference to the cost of producing coal, there should be no delusions whatever about what would happen under government operation of mines. We have had a splendid object lesson of the efficiency of Federal management in the case of our railroads and our ships. But railway lines and services are in plain sight on top of the ground and ships are equally in plain sight on top of the water, so that inefficiencies in the operation of such enterprises are plain in the sight of those who use them or are in contact with them. On the other hand, the mining of coal is conducted underground in the dark, out of sight of the consumers of the product. The investment there is subject to constant danger and rapid deterioration. The operation requires the utmost watchfulness and care on the part of everyone charged with responsibility in order to maintain the property of the company and safeguard the lives of the employees. What conditions would inevitably prevail if the care and management of such an enterprise were left to the discretion of a government employee who had no investment of his own in the property? Who can estimate the waste and loss which would result, the millions which would be piled on the cost of coal annually, and the added danger to life and limb below ground under these conditions? If the government owned the mines today and was charged with their operation, it could do no more than the private operator has done toward obtaining employment for the men at the mines or running the mines more regularly unless it required the consumer of coal to take in the output at those mines without regard to his immediate need or desire for the product. If government authority has the power and the willingness to enforce such requirements upon consumers of coal, then the government can stabilize the operation of the mines without burdening itself with the added task of owning and operating them under any nationalization scheme; and if it is not willing to enforce

these requirements upon consumers, then nationalization and government operation as a means of stabilization are foredoomed to failure from the outset.

CONTROL OF COAL AND COAL LAND[1]

Before any "small and willful group" of senators is allowed to plunge this government into an enterprise which they, themselves, have described as socialistic and bolshevistic, it is well to inquire:

"Where does this thing lead?"

We need not be blind to the plight of a nation which surrenders to bolshevism. We have but to study Russia.

We need not be blind to what government control of all business means. We have but to study the New Zealand experiment.

We need not even be blind to what control of coal must involve. A simple problem of arithmetic will show the consequences.

That is, the pending coal bills propose to commit the government to the stabilization of the coal industry. Before you can stabilize, you must control.

You may try, at first, merely to control the men in the coal industry, you must, in the end, try to control their product.

You may, next, try to control the product; that cannot succeed unless you also control the coal mines.

You may try to control the mines; you cannot do it unless you control the land.

Whether you take all of the steps now or whether you take them one at a time does not change the fact. At the end of this road upon which you are about to venture is the need to control every acre of coal under our soil. That is your real goal.

We want you to know before you start what this will

[1] From letter of George H. Cushing of the American Wholesale Coal Association to Honorable A. B. Cummins, United States Senate, Washington, D.C. 12p. American Wholesale Coal Association. Washington, D.C. June 18, 1921.

mean in the end. It is not necessary, as a preliminary, to weigh the coal in the ground; to estimate the annual needs; and to tell exactly how long our coal pile may be expected to last. It is enough to say that roughly we have enough coal to last this nation for a period of time equal to that between the creation of Adam and the inauguration of President Harding.

It is not necessary, even, to take account of all of that coal. We have enough coal, *readily available in thick seams,* to carry this country through another thousand years of life. Let us, then, use that as the measure; let us say that our coal deposits will outlive another thousand years.

We use coal only one year at a time. In the hills is enough coal to last at least a thousand years. If you insist upon controlling coal today, you must impound that supply which is to serve this nation for the next thousand years. That is the program upon which a few men would have you enter.

Upon the threshold of that program, you come upon one question which you must answer:

"How can you prevent any citizen from mining the coal which underlies the land which he owns?"

If you can't do that, you can't control the coal industry. Without control, you can't stabilize coal.

A wise man has said that if this government had, in the beginning retained all coal rights to itself and had then decided that coal lands could be developed only under lease from the government, it would be easy now to control this coal reserve.

Unfortunately, the government did not in the beginning reserve all coal rights to itself. In a hundred years most of this coal has passed under private ownership. Hundreds of thousands of acres of it have been worked out under private control. Other hundreds of thousands of acres are now under development by private concerns. Millions of acres of virgin coal are privately owned

awaiting development. The ownership of this land is absolute.

So long as that fact remains, how can the government say to one owner that he may mine his coal and to another owner that he shall not?

If you try to avoid this discrimination by deciding to dispossess all owners of coal-bearing lands of their coal rights can you do it without also dispossessing the owners of iron ore, of the semi-precious and of the precious metals?

If you decide to dispossess men of their mineral rights, where does that leave the owner of the surface? If you can dispossess a man of what lies under the surface, does not the exercise of that power put a cloud on the title of every piece of real estate in America? Is it not true that such an act of dispossession would put a cloud on the title of every farm in the United States and upon every home and every square foot of business property in every city?

If you do not want to dispossess the owner of his property and still want to control that property, is it not true that you have to buy it? Are you prepared to buy all the coal in the United States in order to control it?

The Geological Survey estimates our wealth in coal to be four trillion tons. If you should buy that coal at a cent a ton in the ground, it would cost the government $40,000,000,000. If you should capitalize that cost at 6 per cent, the carrying charge alone would be $2,400,000,000 per year or more than half the present cost of running the government. If this interest charge alone were carried for six hundred million tons of annual production, it would amount to $4 per ton.

This is the undertaking which a small group of Senators propose that this government shall run headlong into. You may, if you choose, close your eyes to it. You may ignore it temporarily. But, if the Senate should stick its head in the sand, ostrich fashion, it may close its own

eyes to the issue and danger but that removes neither. The bold fact still lives that if you start to control coal you must, sooner or later, control the coal land.

FEDERATION OF BRITISH INDUSTRIES AND NATIONALISATION[1]

The Federation of British Industries, which has now a membership of eighteen thousand manufacturing and producing firms having an aggregate capital of £5,000,000,000, has issued the report of the Nationalisation Committee appointed in March last to consider the question of nationalisation. It may be regarded as the first important pronouncement on industrial policy by employers since the National Industrial Conference convened by the Prime Minister on February 27, 1919.

In a foreword on the conditions and development of the industrial system it is pointed out how, at the present time, the capitalist system is the basis of the whole of the productive enterprise of the civilised world, and how production cannot take place except through the previous accumulation of wealth by the efforts and savings of individuals. It is claimed that the capitalist system has offered the maximum inducement to every citizen to take part in the great adventure of productive enterprise, which has maintained the world and made civilisation possible, while at the same time the risk of personal loss involved has tended to restrain reckless and uneconomical production.

It is claimed that the development of the principle of combination is a normal and necessary feature of the industrial evolution consequent upon the use of power-driven machinery, and that it has been of definite benefit to the consumer by standardising and steadying production and reducing costs. Moreover, the increasingly in-

[1] From Iron & Coal Trades Review. 99:165-6. August 8, 1919.

tense commercial competition of other nations makes the principle of combination absolutely essential if British industry is to hold its own at home and abroad. If, therefore, the present industrial system is to reach its full efficiency as a means of satisfying the requirements of the community, the evolution toward large-scale organisation must be encouraged and not discouraged. Meanwhile it is admitted that the development of combinations of capital is undoubtedly responsible for some of the present unrest in the industrial world. Among the reasons assigned for this are that it has occasionally led to the exploitation of the consumer, though this latter feature has, almost certainly, been greatly exaggerated. The aggregation of capital into large units has also led to the separation of the owner of capital from the workers he employs, and a further disadvantage has been the great waste caused in some of the world's essential resources.

The remedies which the Labour and Socialist parties suggest for the difficulties referred to are:

1. Nationalization

a. To prevent the possible exploitation of the consumer by the monopolies which may result from the centralisation necessary to the efficiency of certain industries and public services. b. To supervise and coordinate the development of essential national resources.

2. Democratic Control by the Workers

To prevent the alleged exploitation of labour by capital, in regard to a. conditions of employment, and b. division of the reward of industry.

1. Nationalization

Pointing out how the word "nationalisation" is used loosely to cover a great many forms of communistic enterprise, *e.g.*, state ownership, state ownership combined with state management, municipal enterprise, etc.,

the committee proceed to set out their views in a number of general statements.

State Management

They lay it down as a general proposition that centralised management by a government department is fatal to commercial efficiency and enterprise. They point out that those members of the government Committee on Trusts who signed the addendum to the report of the committee (Messrs. E. Bevin, J. A. Hobson, W. H. Watkins, and Sidney Webb) were careful to safeguard themselves by stating that state ownership does not necesssarily imply state management, while Mr. Justice Sankey in his Report on the Second Stage of the Coal Industry Commission stated that "Hitherto state management has on balance failed to prove itself free from serious shortcomings." After quoting passages from the evidence given before that commission by the Honorable F. M. B. Fisher (Minister of Trade and Customs in the government of New Zealand, 1912-1915) and Sir Keith Price (Director of the Raw Materials Section of the Ministry of Munitions in 1915 and Deputy Director-General, 1916 to 1917), the committee continue: All these difficulties appear to us to be intensified under a democratic form of government, and in confirmation of this it may be observed that the bureaucracy of Germany under the imperial system, which involved subjection to the imperial executive and freedom from parliamentary control, came nearest to achieving an efficiency comparable with that of private enterprise. It would, therefore, seem almost inevitable that if a nationalised industry is to achieve any high degree of efficiency it should be developed under a system of autocratic control, and the greater the extent to which the industries of the country are nationalised, the greater the danger that the government will tend away from those ideals of true democracy which have only just triumphed at the cost of so much suffering.

Manufacturing Industries

These inherent weaknesses of state management account for the fact that, while the state has at different times and in different countries undertaken a wide range of those important enterprises which aim at rendering a service open to the whole community, and has, to some extent, engaged in manufacture for its own consumption, it has not, speaking generally, engaged in industries aiming primarily at the production of goods for exchange. The state is obviously unsuited for enterprise of this kind, and it is not surprising that, although state monopolies have been established in certain products for purposes of revenue, the results have in general been most unfortunate for the consumer. The same can be said of municipal enterprise; this has never engaged to any substantial extent in the production of goods for exchange. It is, in fact, impossible for this class of production to be satisfactorily carried out unless the producer is subject at the same time to the spur of possible profit and the curb of possible personal loss. The civil servant or municipal employee should be immune from the temptation of personal profit, while the body which employs him (the state or municipality), having the public purse behind it, is liable to fluctuate between overcaution and extreme recklessness.

It is further inconceivable that an industry owned or managed by the state could enter into competitive trade in foreign countries in the present stage of human development without encountering difficulties, both economic and political, which would be disastrous to any hope of amicable international relations. Every trade dispute would become a potential *casus belli,* every unpaid account or broken contract the subject of an ultimatum. And yet a great and increasing export trade is an essential of continued existence to a highly industrialised country such as Great Britain, dependent for a large proportion of her essential foodstuffs and raw ma-

terials upon her imports, and compelled to pay for them by the export of manufactured commodities.

Public Service Industries

Where there is no question of meeting the varying requirements of individual consumers, but only of supplying some public service open to the whole community, different considerations arise. A substantial proportion of the essential public services, such as transport, supply of water and lighting, drainage, etc., in many civilised countries is in the hands of the state or municipality. The nationalisation or municipalisation of these services has been accelerated by the fact that these forms of enterprise can be run more or less by routine methods and are conducted on the principle of increasing returns.

Conclusion

The committee record their emphatic opinion that in dealing with industries or public services of whatever class, whether local or national, any further extension of state monopolies should be avoided, not only for the reasons given above under the heading of "state management," but also because:

a. The proper safeguard against private monopoly is not the creation of state monopolies, which are much more dangerous. The intervention of the state should aim, not at removing, but at preserving so far as possible the advantages of competition.

b. There is very grave objection to the government being the employer of a large proportion of the voters upon whose support it depends.

c. The principal aim of the state must always be political.

d. The existence of such monopolies makes it impossible for the government to be impartial in industrial matters, and makes for political corruption.

e. It has hitherto been found impossible for the state to give sufficiently free play to local knowledge and ex-

perience in connection with the services which it administers, and over-centralisation is hostile to progress.

f. State administration is always found to involve serious delay in the taking of decisions, even on matters of detail, and to be deficient in that elasticity which is essential to commercial success.

g. The fact that any deficiencies in working can be met out of revenue is often an irresistible temptation to uneconomical working.

h. Owing to the close interdependence of our different industries, the taking over by the state of one industry for what may be considered reasons of public policy may involve the state in the necessity of taking over other industries, the nationalisation of which would be a disaster to the community.

Recommendations

Summarising their recommendations *re* nationalisation, the committee continue:

State Regulation of Monopolies

a. But although we are averse to state management, we recognise that the public is entitled to some protection against possible exploitation by monopolies. As already indicated, we think the danger of this exploitation has been greatly exaggerated, but the fear of it exists, and industry should, therefore, submit to such intervention on behalf of the state as may be necessary to remove the hostility to the idea of combination which undoubtedly affects certain sections of the public. The principles on which state action should be based are generally indicated in the report of the government Committee on Trusts and we are prepared to support those recommendations of the committee, which throw on the Board of Trade the duty 1. of inquiring into any reasonable complaints which may be made with regard to the existence or action of any trade association or combine and refer-

ring any question which may arise from their inquiry to a special tribunal for investigation and report, and 2. of recommending to the state action for the remedy of any grievances which the tribunal may find to be established.

It will, however, be most important in carrying out any policy of this kind to safeguard the position of the export trade, and we regard it as essential: 1. That no restriction should be placed on British industry which will prejudice its position in the export trade. 2. That care should be taken not to publish or give extended circulation to any information regarding the activity of trade associations or combines which might be useful to their foreign competitors.

Conservation of National Resources

The state should exercise the supervision and control necessary to ensure that the national resources are not wasted, but are used to the best advantage of the community; this should not involve the exploitation of such resources by the state, and need not involve state ownership, but only the amount of regulation necessary to prevent waste.

Cooperative Societies

Referring to these as having done excellent work for the community, the committee point out that they buy the greater part of their supplies in the ordinary markets, and that to that extent their work is distributive only. But the measure of success achieved by them in establishing factories and workshops for various products for their own consumption is due largely to the fact that they have an assured market, and confine themselves to making staple goods by standard methods.

II. Democratic Control

Reporting under this heading, the committee state that, according to a recent writer: "The unrest in the

industrial world today has not its roots solely in poverty and want. There is something deeper still at work. Wage-earners are filled with a vague but profound sentiment that the industrial system, as it now is, denies them the liberties, opportunities and responsibility of free men." This feeling of unrest, which is naturally more characteristic of the intellectual section of labour than of the rank and file of the workers, has given rise to the demand, which the proceedings of the Coal Commission have brought into prominence, for "democratic control." The scope of the demands of labour under this head ranges from a share in the control of working conditions to the taking over of the whole function of the employer. Speaking generally, the advocates of "democratic control" ignore nationalisation, and aim at placing the control of industry to a greater or less degree in the hands of the workers, thereby admitting what is undoubtedly the fact, that neither nationalisation nor municipalisation will substantially affect their position. As an example of the more moderate demands made in this connection, the committee refer to the presidential address by Mr. Gosling at the Trade Union Congress in 1916, and continue: But there has long existed a school of economic thought whose demands go much further than this. The elusive idea of a form of organisation, in which the workers would have complete control of their lives and work, has given rise in the past to numerous experiments in "self-governing workshops." The same aspiration in a different form, applicable to modern large-scale industries, emerges today in the proposals of the syndicalists and the guild socialists.

Syndicalists aim at the ownership of the means of production by organised labour, without any intervention by the state. They are radically opposed to socialism, holding that the state is the great enemy, and that collective ownership by the state would make the lot of the workers much worse than it is now under the private employer.

Guild socialists, on the other hand, hold that "the state should own the means of production as trustees for the community; the guild would manage them, also as trustees for the community." They hope to be able to include in their guild both the manual workers and the brain workers in the industry.

The essence, however, both of guild socialism and syndicalism is to change the control of industry "from above" into control "from below."

The history of past experiments in cooperative production (whether of workers actually owning the shop and plant or of men working cooperatively under contract with the owner of the plant) shows that any policy of this kind must be fatal to our national efficiency. Associations of workers, which have been formed for the purpose of carrying on production, have found themselves unable to cope with industries conducted on a large scale, and in small-scale industries they have failed to make headway against, or even keep pace with, the capitalist system. In no country has any but the smallest fraction of industry fallen into their hands. The following are the more obvious defects of nearly all attempts at cooperative production:

1. The difficulty of securing discipline and efficient management when the manager is himself subject to those whom he has to direct.

2. Self-governing workshops have all been noticeable more or less for the slowness and reluctance with which they have re-acted to any industrial change. The workers are biased in favour of the continuance of that to which their hands have become adapted. They are slow to introduce new processes, slow to adopt new inventions, slow to install machinery, slow in altering designs and patterns, and particularly slow to recognise the coming in of some alternative to their own commodity.

3. Finally, the gravest, and apparently the most insuperable, drawback to this form of industrial organisa-

tion is that the manual working producers have no intimate or accurate knowledge of the market for which they have to produce. They are not in direct contact with the consumer of their commodity. They do not recognise his desires or caprices; they are unable to foresee what he would prefer—hence they are constantly finding themselves unable to dispose of their wares.

Production for exchange cannot be successfully carried on unless the actual producer is under the direction of the commercial side.

In their recommendations, the committee consider possible developments under the two following heads: Participation in Management" and Participation in Profits."

The State and Industry

Concluding with a few observations under this heading, the committee state that, generally speaking, they believe that neither employers nor employed desire the intervention of the state to settle their difficulties, except as an impartial arbitrator. The principles of trade union representation and collective bargaining are now fully accepted by employers. They hope that both sides will show themselves increasingly ready to yield to the influence of public opinion, and this tendency will grow as the establishment of joint councils gives greater opportunity for the friendly discussion of difficulties and greater and wider appreciation of the economic conditions under which industry is carried on.

The function of the state in relation to industry should be confined to laying down minimum conditions for employment and safeguarding the public, *e.g.*, from the dangers due to the development of monopolistic combinations, whether of capital or labour. For the power of monopoly is not confined to organisations of capital. The trade union which endeavours to exploit the community by withholding its labour is acting as much in restraint of trade, and should be subject to the same

state control as the combine which endeavours to exploit the consumer by means of a monopoly of its products.

TOWARD A COAL PLAN[1]

Administrative plans are essential if human beings are to work together under the pressure of modern large-scale industry. That pressure in at least two basic industries is increasing as rapidly as if the worker were a deep-sea diver dropping down toward the ocean-floor. We do not intend to draw a plan for coal in these next thousand words, but we shall attempt to suggest the principles from which a plan could be drawn. The contest in plan drawing should be thrown open to engineers, miners, experts in administration, editorial publicists. In asking an architect to submit plans, it is helpful to tell him what kind of structure is wanted—whether a cathedral or a bungalow. We suggest that the coal industry is a public affair rather than a private and hidden enterprise. We assume and affirm that coal is a public utility.

A public utility is an indispensable commodity or service, to which all the community should have a measurably equal access. A public utility refuses to behave as a harmless little fenced-in private enterprise. If squeezed down into the control of a single group of owners, it revenges itself by breaking loose into activities against the general welfare, and it goes raging through the community like the Golem until it has found its rightful place as a public service. One definition of a public utility might be that in private hands it is uncontrollable, because it refuses all control except public control.

If that is so, if coal is a public utility, what follows? It follows, in the phrase of a Senate bill, "to recognize and declare coal and its production and distribution charged with public interest and use." Therefore Con-

[1] From New Republic. 30 : 238-40. April 26, 1922.

gress has powers over coal—powers analogous to those which it exercises over interstate commerce, over matters of public health, over matters charged with public use, and over taxation. The highway on which coal will travel to social control is the "general welfare" clause of the American Constitution.

This social control should not become nationalization at the present time nor in the near future. We believe that within the next five years nationalization would be a calamity for the miners and for the public. Our reasons are definite. Except to dreamers of a syndicalist world, forecasts show that this imperfect but agreeable American nation of ours will bump on from precedent to precedent under a political state and representative government. This means that a nationalized coal industry would be under the control of a Federal commission of "well known and unbiased" and hard-boiled business men, backed by the police power of the American government. The Steel Corporation would be a gentle ally of labor compared with the mobilized power of that official tyranny. The United Mine Workers of America would be cracked like an egg shell on the first wage dispute.

This does not mean that nationalization is forever beyond reach. It will enter possible procedure when there is an organizing mind in the public service, a competent administration, a devotion to public welfare, a less imperfect democratic state, and a powerful labor representation in Congress and all the other areas of government. The result of such a peaceful revolution would be a Federal commission in control of coal, whose membership would not be hostile to organized labor, whose decisions would be based on a wide human consideration. If coal were nationalized in Britain, the governing body would include men like Justice Sankey, Lord Haldane, Redmayne, and Tawney. And that representation would be the result of a long democratic process. But nationalization now is for us an illusion, except as it is an educational ferment.

What are the matters a working plan for coal should include? There is the need at the center of management for "a system of analysis and record," "a running audit," "a machinery of knowledge," in the phrases of Walter Lippmann,—the compulsory, continuous centralized fact-finding agency of the miners' demand, the bureau of statistics, which the Fuel Administration in part created. It is fortunate that public accountants, geological experts and other technicians can already give wise service, when public administrators in the field of human relationship still lag in technique and impartiality. Facts are less agitating than instincts. It must be added that these impersonal fact-gatherers shall have nothing to do with the control of policy and the job of administration. Theirs not to reason why, theirs but to classify. They are a pure scientific body, as uninflamed by their research as a chemist.

Then follows the need of striking straight at the chief malady of coal, over-development—incurable and private competition for profits. No more new mines until demand has overtaken supply: that is a simple statement, and a simple licensing system will embody it. But there will remain too many mines already working. We suggest as a promising principle of reorganization the principle of industrial maintenance—that the industry shall care for its unemployed. Let the coal industry be required to guarantee a minimum of employment. Let the cost of unemployment be borne by the industry. This will force the operators to reconstruct the industry. It will carry up the surplus mines. It will drive out the irresponsible speculators, who open "snow birds" and wagon mines. It will benefit the substantial operators who mine coal for contracts instead of for spot sale speculations. By this device of industrial maintenance, if the operators purge the industry of its gross over-development, the miners will be forced to purge their ranks of a gross over-manning.

Car shortage and seasonal fluctuation of demand for

coal will be lessened by an extension of storage at the points of consumption. There are technical difficulties still to be overcome by at least a wider application of existing knowledge. But the main difficulty is the cost of storage. This cost can be met only by concentrated capital or by current earnings. The individual operator is helpless. The need here is for some method of pooling which will give economies and avoid undue monopoly. There are several suggestions, which need severe scrutiny. One is for cooperative selling societies. Another is for pooling costs by consolidating the mines of the country into a few large groups. This would enable the low-cost mine to help pay for the coal of the high-cost mine, instead of setting the price of coal by the marginal high-cost mine. It would also create a half-dozen coal trusts. A third suggestion is for more pooling of coal. Whatever method emerges from investigation, the principle will be vindicated that the sprawling industry demands unification, integration, a tighter organization (with accompanying social control and investigation).

Pyramiding of coal prices by resales is a practice that can be penalized by a brokerage tax.

Enormous wastes of coal by bad mining practice, probably one ton lost for every two mined, can be lessened when the nation is interested in its own future. This saving requires a projection plan, not dependent on immediate financial returns.

Finally, if we decide to treat coal as a public utility, economies will be sought not only in reorganization along the lines suggested, but in the better use of coal. Coal as power, its energy resources, are a national asset as yet meanly utilized. When coal dies into energy at the mine head, and that energy is concentrated from many fields into a central power station, and from there rayed out to a thousand communities, it will bring a new freedom, if dealt with as a public utility and not as a private monopoly.

We have over half the coal of the world, the best

machinery, willing miners. But coal brings us more annual disturbance, greater extremes of glut and shortage, more waste, more death, than it brings to the impoverished countries of Europe. And the reason is our failure to charge it with a public service. Never letting up in the demand for facts, we need with the facts an outline of an orderly and reorganized industry.

COAL STRIKE[1]

Government has two main functions. The first is to keep itself alive—to perpetuate itself. The second function is to protect the privileges of the property-owning minority. The government will always be found favoring the interests of property when they come in conflict with human beings and human life. The government is the champion of property against labor; and it can pretty generally be expected to play true to its obligations. The sooner the working people understand these simple facts the sooner they will proceed to solve this problem, and the less seriously will they take the antics of the gentry at Washington.

Now talk is turning to government ownership of the coal mines. There is delusion in this proposition. It may be better than the present system of ownership and exploitation by the coal barons (nothing could be worse); but it does not solve the problem. What the government owns, the people do not own. Let us make no mistake about this. Under government ownership, coal would not be mined in the interest of the people, but in the interest of the government. The people and the government are two different things. They always have been; they always will be.

The mining and distribution of coal will not be upon a just and scientific basis until the consumers own the mines. And when the consumers own the mines coal

[1] From Co-operation. 8 : 73-4. May, 1922.

will be mined and distributed for use—for the service of the people who are the owners. The less the government has to do with it the better it will be for the people.

GOVERNMENT PRICE CONTROL

COST OF COAL[1]

The price of coal is a matter of vital concern to the average citizen. No less important, however, is the question what our coal actually costs to produce and the interest in this subject is typical of the popular interest in the large productive enterprises of the country. As citizens we recognize the consumer's dependence upon the producer and are taking advanced ground as to their relative rights. In few industries does this dependence seem more vital or the consumer's equity appear larger than in that of producing and selling coal. The per capita annual expenditure for the useful metals is roughly equivalent to that for coal, but few citizens purchase pig iron or bar copper, whereas of the urban population only the dwellers in apartments, boarding houses, and hotels are spared the necessity of buying coal. The consumption of coal in the United States for heating and cooking is between one and one and one-half tons per capita. A careful estimate for 1915 is one and one-tenth tons, which happens to be identical with the figure determined for similar consumption in Great Britain in 1898. This non-industrial consumption is greatest in cities and in the city of Chicago in 1912 it was nearly two tons. Of course, every citizen indirectly pays for his share of the total consumption, which last year amounted to four and six-tenths tons per capita.

Again it may be that because to a larger degree the cost of metals is charged to capital outlay rather than to the operating expense of life, we appreciate less keenly

[1] By George Otis Smith and C. E. Lesher. United States Geological Survey. A paper read before the American Mining Congress at Chicago on November 14, 1916. Metallurgical and Chemical Engineering. 15 : 631-5. December 1, 1916.

the unit price of these materials that are not immediately consumed with the using. At any rate, public opinion is more easily brought to a high temperature by considering the price of coal than by considering the price of any other product unless we except gasoline, recent discussion of which has been almost explosive.

Looking backward as well as forward, one need not be an alarmist to suggest that in the whole field of productive business the coal industry seems the one most likely to be threatened with government operation. The foodstuffs are produced on land owned and operated by the millions, and so far as the production of the raw material for them is concerned, "monopoly" is an unknown word, but when we think of coal, terms like "barons" and "trusts" instinctively some to mind. For these reasons the determination of certain facts connected with coal production and the analysis of the cost elements that enter into the price of coal constitute a timely subject for discussion.

In discussing costs, however, we do not overlook the too evident fact that at times price may far outstrip cost. The price of coal depends upon the balance between necessity for fuel on the one hand and ability to produce and to deliver on the other; the ability to produce is in turn controlled by the labor available and the ability to deliver is dependent upon car supply. Increased foreign demand for American coal, large industrial consumption, unusual weather—all may have great influence on the current price of coal, but none of these is to be considered a factor in the actual cost of production except so far as it causes irregularity in operating expenses and promotes a decrease in efficiency of mine labor. Today high prices are being received for coal by those who are able to produce and deliver more than their outstanding contracts require. In other words, a few traders may be able and willing to capitalize the urgent necessity of the consumer and their own ability to deliver. The premium for fuel now being

paid generally by the consumers of the country and by such traders as have been caught short in their contracts is in reality not properly chargeable to cost of coal but to cost of car and labor shortage, just as in the times of stress accompanying labor troubles the premium paid by their consumers is a part of the price the country pays for strikes.

Four Items of Cost of Coal

Four general items of cost must be considered as normally controlling the price of coal to the consumer —resource cost, mining cost, transportation cost, and marketing cost. Under usual conditions each of these items includes a margin of profit which may seem either excessive or inadequate, according to your point of view. Yet an unbiased consideration of these cost items is absolutely essential as a preliminary to the decision by the public whether we are buying coal at a fair price, and if not why not. As long as it is the popular view that the price of coal is made up of one part each of mining costs and freight costs to two parts each of operator's profits and railroad dividends, with the cost of a certain amount of needless waste on the side, the demand for investigation will continue, and in so far as there is any element of truth in this view, legislative action is justified, even though the prescribed reform may approach the extreme of public ownership and operation of mines and railroads.

As the initial item of cost, the amount charged against the marketed product as the value of the coal in the ground, which for brevity may be termed the resource cost, is perhaps the item most often overlooked by the coal consumer, and for this reason that phase of the subject will be fully considered after the other items are treated. These other items need less discussion in this paper for several reasons: the item of marketing cost is one that can be brought directly under

observation by the consumer if he will but study the matter intelligently, the transportation cost can be learned by simple inquiry and its control lies within the province of the Interstate Commerce Commission, and the details of mining cost can best be set forth by the mine operators themselves, for they have now adopted the policy of free discussion of these matters, which they once regarded as sacred from public view. The purpose of this paper, then, is simply to give a summary statement of all these elements in the cost of coal, and some special discussion of the resource cost. In presenting the subject, the senior author assumes responsibility for whatever may be regarded as mere expressions of opinion and the junior author stands behind the statements of fact.

Mining Cost

The item of cost first to be considered represents that part of the value given to the ton of coal by the mine operator and the mine worker. This may be termed mining cost, but it must include the operator's selling costs and other overhead expenses as well as the mining costs proper which include the larger expenditures for wages, supplies, and power. This cost plus the resource cost—the royalty or depletion charge—and the profit or loss on the sale make up the value at the mine mouth. The mining cost varies not only between mines of different companies in separated fields but even between adjacent mines of the same company in the same field. Both nature and man contribute to such variation.

It is not practicable to assign a very exact figure to the mining cost—the census of 1909 indicated an average of $1 a ton for bituminous coal and $1.86 for anthracite, but these figures are believed by some operators to be too low. It is possible, however, to show in a general way the distribution of this item; the cost of mining is divided between labor, 70 to 75 per cent; materials, 16 to 20 per cent; general expense at mine and

office and insurance, 2 to 4 per cent; taxes less than 1 per cent to 3 per cent for bituminous coal, and 3 to 7 per cent for anthracite; selling expenses nothing to 5 per cent, and recently to these items has been added the direct and indirect cost of workman's compensation which may reach 5 per cent for bituminous coal. The charges for labor, material, and general office expenses are easily understood, as is also a charge for depreciation of plant and machinery; but taxes and selling expenses are important items that may be overlooked by the casual observer. Some figures recently published show that the taxes levied in West Virginia last year on coal lands and coal mine improvements—that is, on the industry as a whole—were equivalent to nearly 3 cents per net ton of coal produced, which is doubtless fully as much as the profit made by many of the operators in that state.

The cost of selling coal is nothing for the companies that use their own product, including the Steel Corporation and a large number of others, and is little or nothing for the producers who sell nearly all their coal to such large consumers as the railroads. Companies that produce coal for domestic use and the general run of steam trade must figure on a selling cost as high as 10 cents or more per ton, the cost depending on the extent of their business. The average selling cost for bituminous coal is probably 5 to 10 cents a ton, and for anthracite the usual charge of sales agencies is reported as 10 cents a ton for steam sizes and 15 cents for the prepared sizes.

Transportation Cost

The producers of coal and the transportation companies are concerned not so much with the actual rates charged for carrying coal as with the adjustment of rates between different coal fields and between different markets. In the many years in which our coal industry has been developing, rate structures have been built up

that give to this and that producing district differentials over other districts—"handicaps," as it were—that may be based on comparative lengths of haul or on the ability of the coals to compete by reason of difference in quality or in cost of mining, or perhaps may be merely the survival of past practice, for which no reason now exists. The consumer of coal, however, is interested in the actual rather than the relative freight rate.

To help toward a realization of the magnitude of this transportation item, it may be pointed out, first, that all but 14 per cent of the output of the country's coal mines, aggregating five hundred and thirty-two million tons, is moved to market by rail or water, and second, that nearly half of the bituminous coal (47 per cent in 1915) and more than two-thirds of the anthracite (71 per cent in 1915) is shipped outside of the states in which it is produced.

Add to this statement of the extent to which coal enters interstate commerce, a glance at the distribution of centers of maximum production and maximum consumption—the New York-Baltimore industrial zone, which has a total per capita consumption of nearly ten tons and lies one hundred to four hundred miles from the tributary coal fields; New England, consuming about seven tons to the unit of population and lying four hundred to eight hundred miles from its coal supply; or the populous industrial district of which Chicago is the commercial center, consuming eight to nine tons per capita of coal in part hauled more than four hundred miles from the fields of West Virginia and eastern Kentucky and in part two hundred miles or less from the Illinois mines. With these facts in mind we must realize that the transportation cost is necessarily a large part of the country's fuel bill.

As has already been suggested, the transportation rate in force from any coal field to any market can readily be learned by the consumer who wishes to figure this item in the cost of the coal which he buys. There-

fore in the present general consideration of the subject it is sufficient to state the average value of this item. In the interstate traffic, both rail and water, bituminous coal probably pays an average freight of nearly $2 per ton. In other words, the transportation costs more than the product and, as some parts of the country are just now learning, is sometimes more difficult to obtain. The value of coal, like the value of so many other commodities, is a place value.

The average freight charge on anthracite is higher than that on bituminous coal, first because the rates are higher and second because according to the reports of the Interstate Commerce Commission, *all* movements considered, the coal is carried a greater distance.

Marketing Cost

The cost of handling the coal, exclusive of freight, from the time it leaves the producer until it is in the consumer's fuel bin, may be termed the marketing cost. It can readily be seen that a large part of the coal produced is not subject to this cost, for most large users of steam coal, such as the railroads and the coke manufacturers, place contracts directly with the producing companies or their selling agencies and buy in the open market only when their needs exceed the deliveries under their contracts. Much of the coal, however, both anthracite and bituminous, passes through the hands of a wholesale dealer or jobber before it is received by the retail dealer who puts it in our cellars or in the bins of a power plant. Coal that gets a long way from the mine may pass through many hands before it reaches the consumer, and it not only pays commissions all along the line but is subject to shrinkage and deterioration, both of which enter into the final selling price to the consumer. Brokers are usually satisfied to make a gross profit of perhaps 10 cents a ton, but as several brokers may make a "turn over" on the same car before

it is unloaded this element of cost may be several times that amount.

About half of the anthracite and around 15 per cent of the bituminous coal is retailed in less than carload lots, and the greatest number of individuals are directly concerned in the marketing of this portion, regarding the profits on which there is the widest divergence of opinion. The margin in the retail business between cost on cars and price delivered is between $1.25 and $2 a ton and is not more than enough to give on the average a fair profit. The shrinkage and, in part, the deterioration are together seldom less than 1 per cent of the weight and may exceed 4 per cent, and the retail dealer also must provide in his selling price for uncollectible accounts.

Advertising is a large expense—in part carried by the retailer directly but all borne by the industry. The largest single item in the cost of retailing is of course that representing the labor of handling and the local cartage, which together make up about half the marketing cost.

Resource Cost

There now remains to be considered the first major item, or the resource cost, which is what the operator has to pay for the coal in the ground—the idle resource, which he starts on its career of usefulness. This cost is expressed as a royalty or a depletion charge.

One of the latest leases by a large coal land owner provides for the payment of 27 per cent of the selling price of the coal at the breaker. This percentage is, therefore, not only a royalty figured on the mineral resource but also a commission based on the miner's wage. To bring this right home to you and to me, it may be said that the practical result is that if the anthracite we burn in our range this winter happens to come from that particular property, we will pay fully $1 a ton into the treasury of the city trust that owes its existence to

the far-seeing business sense of a hard-headed citizen of Philadelphia. Whether such a royalty is excessive or not the fact remains that this is the tribute paid to private ownership.

The present average rate of royalty on anthracite is probably between 32 and 35 cents a ton on all sizes, which is from 12 to 14 per cent of the selling value at the mine. The minimum rate (about 10 per cent) is found in some old leases, and the maximum (20 to 27 per cent) in leases made in the last five years. R. V. Norris states that in the late sixties, when the annual output of anthracite was around fifteen million tons, royalties were 8 to 10 cents a ton on prepared sizes, but that no charge was made on the smaller sizes. In the seventies the rate rose to 25 cents on prepared, one-half that on pea, and one-fourth on smaller sizes. By the middle eighties, when the output was a third what it is now, the rate was about double that of the seventies—that is, 40 to 50 cents on the larger sizes and 5 to 10 cents on the smaller sizes. The tendency is still upward by reason of increases in the rates for intermediate sizes and the operation of royalty rates based on a percentage of the selling value, an increasing quantity. Figured on the output from the Girard lands, which is nearly 3 per cent of the total production, the gross return to the estate from its coal lands is over 50 cents a ton.

Nor is the increase in value of anthracite lands any less striking. At the beginning of the last century, as stated by Mr. Norris, the great bulk of these lands were patented by the state of Pennsylvania for $2 to $4 an acre; in the middle of the century the price of the best land rose to $50, and in 1875 even to $500. Now $3,000 an acre has been paid for virgin coal land and little is on the market at that. In considering these increases in land values, the effect of interest and taxes must not be overlooked.

The bituminous coal industry is a modern institution

compared with the mining of anthracite, and much of the bituminous coal land was acquired by the operating companies during the last twenty years for little if anything more than its surface value. Today there are large areas of bituminous coal bearing lands that, because they are undeveloped and without railroads, can be purchased at a low price, but little or no anthracite land is on the market, and little has changed hands for years. The present average resource cost of bituminous coal is not much over 5 cents a ton, or about 4 per cent of the average selling value at the mine. In the Pocahontas region and the Pittsburgh district the royalties are much higher, but these like others that might be cited, are exceptions—one due to coal of special quality, and the other to location—factors which, incidentally, are exactly those that have assisted in making the resource cost of anthracite what it is.

Should you be interested in summing up all these various costs and striking a balance between labor's share and capital's return, you would find that the mine worker, the trainman, and the wagon driver together receive fully half of the price of the anthracite delivered at your house, and the same three classes of labor receive not less than half the price paid by the average consumer for the cheaper soft coal. In a similar manner the average return on the capital invested in land, mining plant, railroads, and coal yard may be roughly calculated, with the result that landlord, bondholder and stockholder of coal company and railroad together receive about $1.15 from the ton of anthracite and only 50 to 75 cents from the ton of bituminous coal, and of either of these amounts the mine operator's share is only a small fraction.

Possibilities of Relief

It is not the purpose of this analysis of costs to offer any cure-all for the high price of coal, yet some comment on the facts presented may possess value. At

least certain lines of approach can be pointed out as not very promising. For example, anyone who is at all cognizant of the trend in price of labor and material can see little hope of relief in lower costs for these items. Furthermore, observation of the advances made in mining methods in the last decade or two affords slight warrant for belief in any change of wasteful operation. As consumers of coal we might do well to imitate the economy now enforced by the producers in their engineering practice. In the Northern anthracite field machine mining is extracting coal from twenty-two- and twenty-four-inch beds, and throughout the anthracite region the average recovery of coal in mining is 65 per cent, as against 40 per cent only twenty years ago. Nor are the bituminous operators any less progressive in their conservation of the coal they mine.

Yet it must be remembered that conservation of a natural resource, though it will undoubtedly be of direct economic benefit in the future, is not essentially a cheapening process; in fact, these increased recoveries of coal have in large part become possible only because of a higher market price. And following further this line of thought, we may say that the increased safety in the coal mines that has come through the combined efforts of the coal companies, the state inspectors, and the Federal Bureau of Mines necessarily involves some increase in cost of operation, but the few cents per ton thus added to the cost is a small price to pay for the satisfaction of having the stain of blood removed from the coal we buy. That form of social insurance which is now enforced through the workman's compensation laws alone adds from 2 to 5 cents a ton to the cost of coal.

In the item of transportation perhaps the most promising means of relief is that of reducing the length of haul. Though many a consumer's preference for coal from a distant field over that from a field nearer home is based on special requirements, the deciding element

in the preference of other consumers is simply the price, and this in turn may be largely due to a differential freight scale, which is thus not in the public interest if we admit the premise that it is wasteful to burn coal in hauling coal into coal districts or past such districts, except in so far as quality requirements absolutely demand the long-haul coal. The recent eastward movement of the higher-grade coals, in part caused by the export demand, may involve some increase in the average length of haul, and thus in the transportation cost of coal not exported, but on the other hand this enforced adjustment may lead some consumers to discover nearer home sources of coal equally well suited to their purposes.

Reduction in marketing costs is a reform so close to the consumer that he should be able to find for himself whatever relief is possible. Professor Mead of the University of Pennsylvania is authority for the statement that the delivery of coal is costing the dealers 50 cents a ton more than is necessary.

There only remains, therefore, the first item of all —the value of the coal in the ground, or rather the return which the landowner is asking for this natural resource. The fortunate holder of coal land, whether a very human individual or a soulless corporation or a large trust estate administered for benevolence only, is likely to endeavor to get all that the traffic will bear. Especially in the possession of a limited resource like anthracite, the tendency has been and will continue to be to increase royalties as the years pass, and the only penalty imposed by the state for high royalties seems to be high taxes, which too often, indeed, serve to justify the high resource cost put upon coal in the ground. Finally, in considering royalty rates or depletion charge we must not overlook the interest that accumulates throughout the period between the purchase of the coal land and the removal of the last ton of coal.

In placing a value upon the Choctaw lands some years

ago the Geological Survey figured the aggregate royalties at current rates as $160,000,000, but if that amount of royalty were to be collected through the six or seven centuries required for mining the two billion tons under this land, the present value of the land would be only $6,500,000 if purchased by the Federal government or only $4,000,000 if purchased by the state of Oklahoma, and even less if the project were financed by a corporation that would need to issue 6 per cent bonds. Such is an illustration from actual experience in coal land valuation—the $4,000,000 to $6,000,000 invested in these Oklahoma coal lands now would require a final return of $160,000,000 in royalties to balance the account.

More recently Mr. Cushing, the editor of Black Diamond, has figured the cost of a monopolistic control of the available coal resources east of the Rocky Mountains on the basis of the United States Geological Survey estimate of two thousand million tons. At a valuation of coal in the ground of only 1 cent a ton, which, as he stated, is less than has been paid for large holdings, this deal would require a capitalization of $20,000,000, and the fixed charges on the bonds of this United States Coal Corporation would require an interest charge alone of $2 a ton against a production of six hundred million tons a year. Mr. Cushing characterizes such a financial undertaking in mild terms as hopelessly impossible, and yet his figures, which do not include taxes, are most enlightening as affording some measure of the cost of possessing an undeveloped resource. Incidentally, these startling figures furnish a strong argument for the present policy of the national government in retaining ownership of the public coal lands, at least up to the time when the market conditions justify the opening of a mine and then either leasing or selling a tract only large enough for that operation. The consumer of the next century simply cannot afford to have private capitalists invest today in coal land for their great-grandchildren to lease.

The burden that seems inevitable under unregulated private ownership of a natural resource like coal is that because the lands containing these national reserves of heat and power are taxed and because the individual or corporation properly charges up interest at current rates on his large holding, the consumer must pay a resource cost which takes into account the long period of undevelopment. Even the high rates of royalty on the lands of the Girard Estate may be found less excessive than they seem if a century's taxes and interest charges are figured. Yet the fact remains that the royalty for anthracite represents a much larger proportion of the cost of the mined coal than any bituminous royalties. Moreover, we believe the highest royalty prevailing in the anthracite region has far more influence in fixing the selling price than the lower rates of the older leases.

Any study of costs in the coal industry finds its point in the question, not who but what fixes the price of coal. The cost of mining coal, like the cost of living, is increasing. Exact mining costs, however, cannot be determined until the operatives have accomplished their reform of standardizing accounting. Too often the operator includes in his account only the two largest and most obvious items, labor and material. Thus, when the market for bituminous coal is dull, the company whose land costs little or nothing is able to set a lower limit of price than the company whose coal must stand a charge of 5 to 10 cents per ton or even more, be that charge called royalty, depletion, or amortization. At such times the operator with the larger resource cost must sell at a real though not always recognized loss, but, of course, with the hope of recouping himself at times of high prices like the present, if fortunately he has any coal to sell not already contracted for.

Even with the average low resource cost of bituminous coal, the state of competition this is tied up with idle and half-worked mines results in an average total cost

that is little below the average selling price. Of course, in this business there are those, both large operators and small, who make a profit in lean as well as in fat years, just as there are those for whom the prosperous years are too infrequent to keep them out of the hands of receivers.

In the anthracite fields the mining costs, and especially the resource costs, are higher. But here, with an average market demand that normally exceeds or at least equals the available supply (and with the passing years this disparity must be expected to increase), there results naturally a lack of competition for the market. Even gentlemen's agreements are unnecessary as long as every operator can reasonably expect to sell his product, and the market price of anthracite at the mine must, therefore, tend to be fixed by the operator who has the largest mining and resource cost rather than by his neighbor who may be doubly favored with a mine less expensive to work and a lease less exacting in terms.

Confessedly, this analysis of the cost elements that enter into the price of coal emphasizes our lack of specific facts, which can be supplied in the future only through "installation of uniform cost-keeping methods and uniform and improved accounting systems," to quote from the declaration of purposes of the Pittsburgh coal producers. With the results of such bookkeeping in hand, more definite reply can be made to the public's appeal for relief from high prices. Yet even now it may be possible to suggest how that relief will eventually be obtained. Study of present conditions in the coal mining districts fails to encourage the idea of governmental operation of the seven thousand coal mines in this country. More in line with the trend of public sentiment in the last decade, however, is governmental control in the interest of the consumer by regulation of prices, and to judge from the facts of experience in the regulation of transportation of the other public utilities, the public

coal commissions will be given sufficient discretionary powers to safeguard the interests of producer and consumer alike, and even mandatory requirements, either legislative or executive, will be subject to judicial review.

Competition seems to have failed of late years to benefit the consumer of coal. In the bituminous fields the competition whenever present has been wasteful, and in the anthracite fields there has been practical absence of healthy competition, and whether too great or too little competition, the result is the same—to increase the actual cost of bituminous coal by saddling the industry and its product with the fixed charges on idle or semi-idle mines, and to raise the price of anthracite coal by favoring the burdens of high resource costs.

In estimating the aggregate losses incurred by society by reason of the large number of mines not working at full capacity, the facts to be considered are that the capital invested in mine equipment asks a wage based on a year of three hundred and sixty-five days of twenty-four hours, while labor's year averaged last year only two hundred and thirty days in the anthracite mines and only two hundred and three days in the bituminous mines with only five to eight hours to the day.

As coal is more an interstate than intrastate commodity, any regulation of prices needs to be under Federal control, and to benefit both consumer and producer such control cannot stop with transportation and mining costs, but must stand ready to exercise full rights as a trustee of the people over the coal in the ground. The private owner of coal land, which derives its real value from society's needs, has no more sacred right to decide whether or not that coal shall be mined when it is needed by society or to fix an exorbitant price on this indispensable national resource than the coal operators have to combine for the purpose of exacting an excessive profit from the consumer, or the railroads to charge all that the traffic may bear. The proposal to bring landowner under the same rule as mine operator

and coal carrier may seem radical, but where is the point at which coal becomes the resource upon which industrial society depends for its very life?

Public regulation, however, will be fair, and, indeed, in the long run will prove beneficial to the landowner as well as to the consumer, to the mine worker as well as to the operator, because any such agency as the Federal Trade Commission, in its control of prices, must determine costs; and as we interpret the present attitude of the whole coal mining industry, the operators are willing to rest their case on a fair determination of actual costs on which their profits may then be figured.

COAL PROFITEERING IN THE UNITED STATES[1]

Taking as its text the recent notification by the New York Edison Company that a percentage would be added to each bill to cover the excess cost of coal over the 1914 basis of $3 per ton, Financial America sums up the cost to the people of the United States of the prevailing orgy of the coal profiteers, as follows:

A lighting bill with coal profiteering charges added should be sent to every congressman. If his butcher and baker, shoemaker and tailor could add the toll of recent excessive fuel costs it might stir our representatives to action.

About 13½ per cent may be added to bills for electricity on the basis of the present cost of coal in New York. That is $8.43 a ton to the Edison Company. The normal price is placed at $3 a ton. Bituminous coal could be bought at that price prior to 1914.

The cost of soft coal enters into the price of nearly all products bought by Americans. It is nearly 90 per cent of all our coal supply. Its output will probably exceed five hundred and thirty million tons this year. It

[1] From Pan American Magazine. 32 : 85-6. January, 1921.

hauls nearly all our railroad trains, turns nine-tenths of the wheels of industry, supplies most of electric power and light, draws ore from the mines, drives nearly two and one-half million tons of our merchant marine and most of the craft on inland waterways. But in the eastern states it enters few homes. Most of us are served by the more luxurious anthracite.

Soft coal last summer vaulted from $3.50 a ton at the West Virginia mines to $12. But it aroused little concern among other citizens. They were more troubled by a smaller increase in anthracite and the difficulty of filling the family coal bin with a winter reserve of hard coal.

Five months of high rates for bituminous have cost the country a large sum to be added to prices. In that time about two hundred and forty million tons were mined and marketed. The price in the big West Virginia and Pittsburgh fields averaged $5.90 above those of May and of November when it slumped. Assume that half of this was "contract coal" sold on long-term agreement at the old price. This meant an increase of $708,000,000 to be paid to the mine owner by the consumer who was compelled to buy in the open market between July and October.

In all the consumer paid probably $1,300,000,000 for coal in the open market at the mine, or $11.40 a ton average price. Freight charges of $1.50 to $2.50 a ton were added, besides sales agents' profits anywhere from 25 to 75 per cent in a period of scarcity. Coal brought $17 a ton during the scramble of the early fall in New England, against $10 in the spring.

At a $7 increase to the factory owner the one hundred and twenty million tons would add $840,000,000 to the consumer's coal bills for five months. This is an item that should reach Congress at the coming session. But it is more important that the citizen who pays it indirectly should know his loss and the cause.

If every business man could add the toll he paid to

coal profiteers to his consumers' bills as a separate item he would arouse a new interest in the fuel problem. That is what the New York lighting companies are doing.

The remedies for these frequent crises have been urged frequently. American industry needs coal reserves, not in the mines, but in manufacturing and other large centers. That was recommended in the report of the Federal Coal Commission last March. Uniform production is needed instead of idleness in most districts in summer, and in others, supplying the lake regions, in winter.

Coal production is ample for America's needs. It will reach this year about ninety to one hundred million tons more than in 1919. She is exporting about thirty-five million tons. But the distribution by rail is spasmodic, interrupted and uncertain. There is consequently temporary scarcity during which profiteers are able to boost prices.

The railroads lack coal cars, locomotives, tracks, terminals for handling fuel promptly. They should be aided by the government to obtain these essentials. At this moment $400,000,000 is owed them for government use of the roads prior to last April. For pressing needs they have been borrowing at 7 to 8 per cent.

Our manufacturing industries and other consumers need coal reserves as much at least as they require fire insurance. No fire, or year of fire, was so disastrous as the coal famine in the winter of 1917-1918. It is estimated to have cost a billion. That is about equal to the fire loss of the nation for five years up to that time. The manufacturer with a coal reserve was insured against loss from winter traffic interruption which caused that crisis. Such interruption came again this year in a less critical season. Its cause was found in the scattered railroad and coal strikes, delaying deliveries, in depleted rolling stock and other railroad equipment.

The coal profiteer took toll more heavily in 1920 than in the blockade of three years ago when the government

controlled prices. His opportunity vanished for a time when scarcity was ended by freeing the rail movement of coal. This temporary relief the emergency measures of the Interstate Commerce Commission and the railroad managers have provided. A recurrence will always be possible if the stream of traffic is interrupted or slackened in speed because of other needs.

The same causes hold back the development of America's mines as a source of foreign coal supply. Our idle merchant ships will carry more coal abroad when the railroads are able to haul more coal from the mines. Europe owes us nearly $14,000,000,000. She needs coal to resume her ordinary pre-war business, earn a surplus, pay her debt and buy more American goods. South America also requires our fuel for her proper development.

COAL AND THE CONSUMER[1]

At the outset the public must determine whether or not coal is charged with public interest and use. It is my own belief that it is, and that the recognition of this fact need be no cause of anxiety to other industries not so charged with public interest.

Last spring, when it was reported that there was a shortage of coal stocks on hand, disquieting statements were issued by the Railroad Administration, the Interstate Commerce Commission, the United States Geological Survey, and by other governmental agencies. The Federal restrictions on the export of coal and on the price of coal were lifted. The outlaw strike of the switchmen occurred simultaneously with an extraordinary export demand which preempted the use of dockage facilities at Hampton Roads; the New England demand for soft coal was thrown into the field from which New York gets its coal, and this congested the railways to

[1] By William M. Calder, United States Senator from New York. Outlook. 128 : 617-18. August 17, 1921.

New York and New England. The northwest had to make its coal shipments before the lakes had frozen and the high prices were drawing the coal in other directions. The public was deluged with the babel of conflicting reports, largely propaganda in its character, from soft and anthracite coal operators and from the wholesalers and retailers.

Orders by the Interstate Commerce Commission giving priority in transportation of coal were issued without notice or hearing. Railway facilities were congested and coastwise shipping left idle.

The public was thrown into a panic, so that anthracite coal sold as high as $27 a ton in Massachusetts and soft coal as high as $20 a ton in Hampton Roads. The government itself paid $18 a ton for soft coal for the Shipping Board at New York, and through the War Department was obliged to pay $11 a ton for soft coal at the mines, sometimes dealing through four and five brokers, which coal was originally sold by the mine operators, including a profit, at from $3 to $3.50.

At the end of the panic it was found that there had been no shortage of soft coal—in fact, that the production had been five hundred and fifty-seven million tons for the year, against approximately four hundred and fifty-eight million tons for the previous year. It was also found that the railways had moved, on the average, one hundred and ninety-one thousand coal cars weekly, compared with one hundred and fifty-four thousand weekly during the previous year, and that railway priority orders and special privileges had been made subject to sale by those to whom they had been freely granted. The location of coal was sold rather than the coal itself. Railway facilities, dock facilities, and even harbor facilities, were monopolized by coal speculators, seriously interfering with general business and industry.

This panic occurred during a most active coal propaganda, yet during a period in which the Federal government itself was enjoined by the coal operators, in the

Maynard case, from securing information, on the ground that coal was not a Federal matter, and while one of the states (Indiana) was restrained by the coal operators in the Vandalia case, on the ground that coal was not a state matter.

The panic probably cost the public $1,500,000,000. A large coal operator appearing before the Senate committee contradicted this statement, and said that the cost was not over $600,000,000 and might not have been over $200,000,000. The Interstate Commerce Commission reported that the extra cost to the railways alone was over $100,000,000.

The soft coal panic was followed by a hard coal panic—for similar reasons and with unknown losses.

GOVERNMENT INTERVENTION IN COAL INDUSTRY[1]

Occasions well may arise when the government—that is, the people—must intervene in the conduct of some business, for their own protection, and in their own protection, moreover, is involved the true protection of the very business involved. If the people suffer, that business is bound to suffer, also.

For instance, in the recent and prevailing high prices and shortage of coal, both bituminous and anthracite, a condition has arisen in that industry which, unless soon corrected, will in my judgment compel the people to intervene. Who is to blame for these high prices—these apparently unreasonable and unjustified prices—must be determined, and those to blame must be brought to reason, even if it be necessary for the people, through their own agency in "government," to take steps toward that end. Apparently, the various elements engaged in the coal industry are unable to place this blame where it belongs. So much time, energy and ingenuity are ex-

[1] By Walter E. Edge, Senator from New Jersey. Coal Age. 18 : 1107-8. November 25, 1920.

pended in the merry sport of "passing the buck" that the man on the sidelines is inclined to wonder how the industry finds time to provide coal.

"I'm not to blame," says the miner; "It's the operator." Then, "Not guilty," says the operator; "It's the middleman," and he in turn blames the railroads for car shortage and the gladsome game of "Here we go round the mulberry bush" continues with enthusiastic cheer. But, with each of these groups accusing the other, the people are moved to wonder whether, after all, each one of them is not somewhat to blame, and whether all may not be involved in the boosting of prices.

At all events, the people have been suffering and are suffering from high prices and short supplies. The average American citizen is the most patient mortal of all the peoples of the earth, but even his patience has a limit. The cold fact is that the people now look on the coal industry as a private oppressor of the public, and when the American people are driven to this extremity of view their alleged oppressor may do well to pause and ponder. As I said, when the people suffer, the business which causes that suffering is bound to suffer also.

When recently I spoke of possible "government intervention" to remedy the apparent evils in the coal industry, the ogre of bureaucratic intervention arose to plague some folk at interest. So dim is the recollection in these days that the people are "the government" that such folks saw visions only of some autocratic agency despotically taking possession of their business and "meddling in their affairs." The truth would be that the people themselves had rebelled against oppression and had instructed their chosen representatives in the legislative and executive departments to act for them in relieving such oppression.

The situation is desperate. In my own state, New Jersey coal is unobtainable in many sections, and where obtainable, may be purchased only at sky-high prices. Identical reports come from virtually every state in the union. Who is to blame for this situation? If the com-

ponent groups of the coal industry cannot ascertain, then the people, through their chosen representatives, must do so. If the coal industry will not, or cannot, immediately remedy conditions, the people through their chosen representatives must and will do so.

Sound business men and the average citizen will hope that such intervention may be only temporary and even of short duration, and that the government, which is the people, soon may be relieved of the task of directing an industry of a private nature. But, in their extremity of suffering, their experience of government management of the railroads is nearly forgotten and the possibility of government control of coal does not appal them. For the people have been accustomed to seeing the government, under the present administration, intrude into numerous lines of private business. They have seen the government engaged in the real estate business, in hotels and boarding houses and theaters, in the wholesale and retail grocery trade, in women's hosiery handled by the War Department—in everything, from cough drops to coffins and from antiques to ziziths. They still disapprove government ownership or control, but they may be driven to a state of willingness to try the experiment.

The people do not ask much; only reasonable prices and adequate supplies for the consumer, legitmate profits for the operators and distributors, fair wages and treatment for the miners, and reasonable dividends for the owners of the railroads over which coal is transported. No one asks more, no one asks less, than this.

COAL OPERATORS AND PROFITEERING[1]

We charge the operators with profiteering. We charge the operators with using every opportunity to sell coal at higher prices. Let me give you a concrete illustration of this. I shall make use mainly of government and

[1] From "Facts" by John Brophy, president District no. 2, United Mine Workers of America. 16p. November 21, 1921.

operators' data. I shall now quote an operator, T. H. Watkins, president of a large coal company, The Pennsylvania Coal & Coke Corporation. Mr. Watkins said before the LaFollette Committee, when questioned as to what caused the increase in price of coal from $1.55 for which it was sold in 1916 to $2.718 in 1917:

"Well, I should say first that it was affected by the market, it was affected by the abnormal demand, which came into the situation caused by the European war orders."

The chairman asked Mr. Watkins "What do you mean by market conditions?"

Mr. Watkins replied, "Demand."

The Chairman: "You mean the opportunity to sell at the higher prices?"

Mr. Watkins replied, "Yes, the market conditions."

Here is a plain answer of what higher finance means to the president of a large coal mining concern; to get whatever he can from the people. When thousands of miners were in the trenches, and thousands of others were bending every energy to sustain them, operators were accumulating profits; and now they are getting ready for a campaign to reduce wages.

Instead of a constructive economic coal policy, Wall Street's conception of coal is profits. Here is what Albert G. Wilson & Co., Stocks & Bonds, of 198 Broadway, New York city, understand by a coal policy: "Coal miners—mine owners—mine coal only for profits." "It is common repute that one West Virginia coal corporation operating with a capital of $178,000 made a profit of $478,000 for the first nine months of 1920."

Profits. Here we have it; as long as profits, enormous profits are made, the public and the miner do not matter.

Profits and profits and only profits, that is the motto. And when we wish to find out more about profits we are stopped. Information is not available.

In 1917 the Treasury Department issued a report on

"Corporate Earnings and Government Revenue," published as a Senate document. That document is not available for public distribution. You all understand why. It deals with profits. The report lists four hundred and four bituminous coal companies and six anthracite companies and shows instances of scandalous profits. The companies are referred to by numbers. Divulging of names is considered a breach of business ethics. Truth about exploiting the public and charging higher rates has no chance at all when it comes to business secrets.

Mr. Trigg, a statistician and research worker testifying before the Committee on Production and Profits in Coal says: "My conclusion from this data is that the larger companies are either over-capitalized, or else have a large amount of money invested in non-productive properties, which are being held for future exploitation, and increase in value and increment thereon on which they are not entitled to any return."

A vivid instance of over-capitalization is given by Charles F. Napier, Jr., acting chief accountant of the Federal Trade Commission. I am referring to the Pittsburgh Coal Company. The facts are not mine. They are the Federal Trade Commission's.

The Pittsburgh Coal Company refers to itself as the largest bituminous coal producing company in the world. What are the facts in regard to this company?

The Monongahela River and the New Jersey Companies were taken over by the Pittsburgh Coal Company. The first named company started with a capitalization of $1,000 which was afterwards increased to $30,000,000; $10,000,000 preferred and $20,000,000 of common stock. Of this stock $20,000,000 was water for which nothing of value was paid. I refer you to Mr. Napier's statement before the LaFollette Committee if you wish more detailed facts relative to the watered stock and financial manipulation of this company. I wish I could refer you to more historical data with reference to financial manipulations of other companies. But the facts are not avail-

able to the public. We miners demand that they be made available. The operators, as you see, have good reason for secrecy. Coal is not mined today for use—coal is mined with an eye to profits and the stock market. As representatives of the public you will come to realize this more and more. It is not the need of the public for coal that the operators are considering. It is how much profit they can make per ton or how coal stocks and bonds will be sold in Wall Street that is their prime concern.

A comparison of the directors of the New York banks with the directors of the Coal Mining Companies and the coal railroads show that the coal industry is largely controlled by New York banks.

What facts are needed? First, facts are needed on costs and profits. The Federal Trade Commission started to collect this data. In 1920 Congress asked the commission to investigate and report the cost of mining coal. For the job $150,000 was appropriated. The National Coal Association asked for an injunction stopping the investigation. The injunction was granted, because "Mining coal was not interstate commerce." The Federal Trade Commission reported to President Harding:

"There is no complete information available to any one with reference to the proper adjustment of manufacturers' and also wholesalers' and retailers' prices in any industry."

In the year 1917, this same "Federal Trade Commission reported on coal:

Whether the prices themselves were reasonable or unreasonable on the basis of the profit they yielded on the investment, remains to be determined by fuller investigation."

Neither the public nor the government knows: whether the industry is fairly capitalized; what the basis of present valuation of properties is; whether depletion and depreciation charges are reasonable; whether salaries are reasonable; what the profits of the industry are.

TO BRING DOWN PRICES[1]

Approaching the problem in a search for possibilities of action, we can at once distinguish several factors which are immediate and susceptible of some degree of control. From the published figures on production of various commodities we know that, following the armistice, production in almost all industries, outside of automobiles, jewelry, and other so-called luxuries, fell off greatly; that is, the productive capacity of the country has been idle to a considerable extent. Harking back to the discussions earlier in the year, it will be recalled that the producers generally announced their intention of curtailing production rather than accept the prices suggested by various agencies as fair. Their explanation stated that it was better business to wait till people were ready to pay more profitable prices. Consequently, they shut down their plants because it was more profitable to do so and the supply of goods was reduced by just so much.

The second factor which appears in this situation is an accounting practice. When a plant shuts down for any reason, voluntarily or because of a breakdown, the overhead expenses continue. The interest on bonds or indebtedness, maintenance expenses, depreciation, and the salaries of the permanent force continue whether the plant is idle or busy. Under the present business practices those overhead expenses during idleness are accumulated and spread over the goods to be produced later. The cost of production, therefore, is increased by the cost of idleness. When that idleness is deliberate, the consumer must pay for the cost of production plus a profit thereon, *plus* the cost of the plant kept idle to increase those profits.

From both these factors it is apparent that the consumer suffers. In the first place the production of goods is decreased and a scarcity ensues, resulting in the price

[1] By L. K. Frank. New Republic. 20 : 175-6. September 10, 1919.

of those goods being enhanced. In the second place the consumer must pay in addition for the cost of idleness in plants which have deliberately been kept idle to keep up the price. In both ways the consumer is mulcted.

The third factor to be noted is the occurrence of protests against high prices by employees of public utilities, street car companies, railways, and the like. A public utility operates under fixed rates and must furnish service upon demand. It may not curtail production or services to enhance the price and, therefore, it cannot raise the price by the cost of deliberate idleness, as in the case of private enterprise.

The public utilities face the problem of obtaining the fullest possible utilization of their plants, while private enterprise is concerned with the largest profit obtainable, whether by production or by idleness. Thus the employees of public utilities are caught in a situation where the organization paying their wages has a fixed income, while the organizations upon which they must depend for the necessities of life can, and do, put up their prices by curtailment of production and charging the consumer for the cost of such curtailment.

In the present state of industrial society, food and clothing and *rent* are as much public necessities as transportation, gas, electricity, water, telephones and telegraphs. But public utilities are forced to render services at fixed rates. The producers of necessities, however, are permitted to make profits by whatever means they choose—production or idleness. And so long as industry is run for profits to the neglect of service, this situation is inevitable.

What then are possibilities for action looking to an improvement in this situation? We cannot by legislation compel the producers to run their plants continuously, but we can make it unprofitable for them to keep their plants idle, by instituting a system of prescribed accounting which makes the cost of deliberate idleness a reduc-

tion in profits. This is not a radical or revolutionary proposal. Many of the production engineers have been advocating such a change in accounting for years, and there is no injustice in restricting costs to real costs of production, by excluding the cost of idleness.

To put such a proposal in effect involves an extension of the public utility concept to the rest of the business organizations of the country. We have been making such an extension during the past ten years, putting under regulation and prescribed accounting all of the service-rendering organizations upon which modern life is dependent. Let us therefore, apply the same technique of control to the meat industry, flour mills, sugar, milk, in fact all the basic industries, including storage facilities such as elevators, cold storage, etc. We can thereby insure the fullest possible utilization of plants, stable prices, and control of profits and at the same time promote continuity of employment for labor, for the wage-earner suffers both from profit-making prices and from the desultory employment incidental to profit-making.

The theoretical argument that such a proposal is an interference with the free "play of economic forces" may be dismissed as an economic fallacy which tradition has made venerable. Since prices are established by definite acts of control over production by individual producers, it is not a question of abandoning our economic freedom but of deciding which control is more desirable—private or social.

In 1907 or 1908 Mr. E. H. Gary, of the United States Steel Corporation, appeared before a Congressional committee and stated that the steel industry would be benefited by government fixed prices and control. That testimony might be resurrected now for the benefit of those who are fearful lest we discourage our producers. And additional testimony might be obtained from the managers and superintendents regarding the effect upon their initiative and zeal of recurring periods

of idleness or reduced operations. It should be remembered that the initiative and skill of modern industry is supplied by the working salaried official, not by the trader or investor for whose financial sake the profit-making technique is practiced.

To summarize, industry is run by traders not by producers, and for profits, not for service. Profit-making by trade-controlled management enhances prices both by its restriction on production and by its method of accounting for the costs of deliberate idleness. Public utilities (and banks in the Federal Reserve System) are legitimate precedents for extending the control of prices, for limiting returns on investments and for applying prescribed accounting. The conflict between public utilities (including their employees) and the private enterprise of unregulated business can only be resolved either by abolishing control over public utilities and permitting them to charge what they please, or by extending such control to the producers of necessities, including landlords. The issue is clear to him who cares to see it.

LABOR HELD BLAMELESS FOR PRICE INCREASES[1]

A careful analysis of the data bearing on the causes of high prices and the relation of cost of production to prices leads to the following specific conclusions:

1. Profiteering—by which is meant the exaction of profits greatly in excess of pre-war profits on the part of producers, middlemen and retailers—is a fundamental cause of the high prices of practically all commodities.

2. Increased wages to labor are in no way responsible for increased prices.

To cite increased wages as a cause of increased prices is to betray an ignorance of the facts. Wage advances

[1] From Coal Age. 17 : 1089-91. May 27, 1920. From report on The Relation Between Wages and the Increased Cost of Living presented to the United States Railway Wage Board by W. Jett Lauch.

have been an *effect* of price advances, not a *cause*. An examination of the experience of every industry shows, practically without exception, that wage increases have lagged behind price increases and usually very far behind. In a period of rapidly rising cost of living it is inevitable that wages also rise in some measure, if the great body of wage earners, living as they do at best not far above the line of poverty, is not to suffer complete degradation.

But in no way has labor been the initial influence. Prices were pushed up by factors over which the workers had no control. They have merely struggled as best they could and in the only way they could to keep their old standards of living. In this struggle they have met with only very partial success. For the great body of wage-earners wages have not kept step with prices.

As a result labor as a class is now worse off than it was before the war. Almost without exception a day's wage buys less than it did in 1912 to 1914. In other words, in the distribution of the income of the country labor is receiving a smaller proportion than it did before the war, while capital—in the form of profits, interests and rent—is receiving a very much larger proportion.

It is not contended that profiteering is the sole cause for the maintenance of prices at their present level. It is contended, however, and data are submitted in proof below, that profiteering has been responsible for a very large proportion of the price increases—probably one-half. Moreover, the other possible factors are more or less intangible and perhaps not susceptible to immediate remedy. But profiteering is a perfectly tangible thing, and one which can be remedied by intelligent statesmanship. And it is only by striking at this root cause of our present troubles that permanent remedy may be obtained.

It is not possible to compute the full extent of the profiteering that has taken place and is now taking place.

The complete information is not available and probably never will be. Too many hands have dipped into the golden stream of war-time profits. Too many ways have been discovered by corporations and business men for concealing the full measure of their earnings. But, in spite of these difficulties, sufficient evidence does exist to establish a conclusive case of "profiteering"—of profiteering on a scale that makes one almost despair of the future of the country.

The evidence referred to is of an entirely authoritative character. It includes the financial statements of corporations, the Federal income tax returns, the investigations of governmental bodies such as the Federal Trade Commission, the Tariff Commission and the Bureau of Foreign and Domestic Commerce, and various reports, studies and statements by other official agencies and men in close touch with public and business affairs.

Perhaps the most conclusive evidence of profiteering is contained in the financial reports of the corporations themselves. In order to develop this point a careful analysis has been made, for the years 1912 to 1918, inclusive, of the financial reports of all corporations of $1,000,000 annual income in certain lines of business in which the ordinary consumer is particularly interested. The sources used were the well-known financial manuals such as Moody's and Poor's.

The corporations listed—including all with incomes of $1,000,000 or over in any one year in so far as they are listed in the financial manuals—earned during the years 1916-1918 an average income of nearly $1,250,000,000 a year, or nearly 24 per cent on their capital stock. This appears to be nearly three times the average for the pre-war years 1912-1914, and the figures for production, where these are available, show conclusively that these increased profits were not due to increased production. They were due in large measure to the fact that the corporation took a larger proportion of every dollar spent by a purchaser. This fact will be shown

conclusively in another part of this study. Here it is sufficient to note that for the three years 1916-1918 the annual profits of these corporations averaged approximately $800,000,000 more per year than during the three-year period preceding the war, 1912-1914.

This is a startling fact. Basing our calculations upon the reported net corporation income as shown in the income tax returns these corporations represent about one-sixth of the total corporate income of the United States. If these other corporations did as well as those of which record is available, and there is reason to believe they did, then the combined corporations of the country earned approximately $4,800,000,000 more *per year* during the three war-years 1916-1918 than during the three pre-war years 1912-1914.

A total of $800,000,000 means $40 per family of five throughout the nation. A total of $4,800,000,000 means $240 per family of five throughout the nation. Consider that each family of five paid as a toll, not to so-called legitimate profits, but to excess of war profits over pre-war profits, $240 per year, and one gains an idea of the total burden which profiteering meant to the country. Yet it is a conservative estimate of what actually happened, and it must be remembered that this huge figure does not represent the whole profit but only the part in excess of the pre-war level.

Even such stupendous figures do not tell the whole story. For the most superficial investigations reveal the fact that during late years the companies have been resorting to numerous devices for concealing profits. Excessive deductions for depletion and depreciation reveal themselves very quickly when we turn to such basic industries as copper and coal. In other industries huge sums are found set aside for Federal tax reserves—sums out of all proportion to the necessities of the case.

In other words, there are very good grounds for concluding that the figures given above very much understate the real profits taken by corporations during the

war years. An average of $1,200 per family of five during the years 1916-1918 is probably a highly conservative estimate of the actual cost of corporate profiteering to the consumer.

During the three years 1916-1918 the consumer has been paying the food corporations whose reports are available over two and one-half times as large profits as were considered acceptable before the war.

In the clothing group the increase in profits was proportionally even greater, the price of clothing carrying a charge for profits nearly three times the pre-war figure.

Turning to the corporations which produce various kinds of fuel, together with certain building products, we find the profits for the war years 1916-1918 nearly two and one-half times those for the pre-war years 1912-1914. For the three years 1916-1918 the average was nearly $250,000,000 a year. The accumulation of profits for the four years 1916-1919 undoubtedly totaled more than $1,000,000,000. This means that during the years mentioned these corporations earned, after every possible deduction had been made, enough to replace their entire capital stock.

The profits of the basic metal industries, however, outdistance those of any other group. These industries are the ones which produce commodities—such as iron, steel and copper—which the consumer never buys directly, goods which are bought by other intermediate producers. But the cost of these basic products enters into the price paid by the consumer.

The war, with its demand for munitions, greatly increased the opportunity to profiteer in these lines. As a result the industries whose services the nation needed most more than trebled their profits. The profits taken during the war years 1916-1918 were, in fact, nearly three and one-half times those taken during the years 1912-1914—$590,138,605 as opposed to $172,729,195. In other words, the excess war profits amounted to over

$400,000,000, which eventually reached the consumer in the prices which he paid for the various commodities into which these basic metals entered.

For a corporation here and there to find itself in a strategic position which enabled it to make huge profits, there was precedent before the war. But for practically the entire business organization of the country, the sum total of the corporations, to be in such a strategic position that it could hold up the public for enormous profits upon everything, no precedent can be found.

After all expenses of operation and maintenance had been paid—after all charges for replacement of capital had been set aside—in fact, after every conceivable or imaginary expense had been met—these great groups of corporations, controlling the various products essential to our life, made profits which were sufficient to replace the entire value of the capital stock within a period of slightly over four years. This is proved by their own published reports.

Statistics compiled by the Commissioner of Internal Revenue from income tax returns show that the corporate profits of the companies listed in the financial manuals are representative of the whole tendency throughout the country's business. For the years 1912-1914 the average of net corporate income was approximately $4,268,000,000. For the years 1916-1917 it had increased to approximately $9,750,000,000. In other words, the net income for the war years was more than double that for the preceding years, despite an excessive deduction of $74,000,000,000 from gross income before net income was reached in 1917. Detailed data on this point will be found in a separate study. The significant fact is that in 1917 reported corporate income was over $10,500,000,000.

As in the preceding analysis of the financial reports of corporations, so here it is found that the most extraordinary increase in profits during the war appeared in the industrial and mining group, where the corporate

income returned for 1917 was approximately four times the pre-war average—$6,500,000,000 as contrasted with $1,669,012,000.

If from the figure given for the total net corporate income for 1917 we deduct the approximate value of the excess profits taxes, and further deduct 10 per cent on all additional capital invested to expand industry to meet war demands, the profits of corporations are still found to be over $3,500,000,000 above the pre-war average.

Such enormous profits made at the expense of the consumer were too large to be divided all at once, especially when a large proportion of high incomes went to help the country carry the enormous expense of war. So only a part of the profits was disbursed. The remainder swelled reserves to huge proportions. Thus the consumer discovers that he has been taxed not only to pay high dividends during the war period but also in order that these same high dividends may be continued over the recession of industry which is bound to follow. Some of these reserves will find their way into stock dividends, thus creating more paper value upon which the country will be expected to pay a fair rate of profit.

COAL AND PRICE REGULATION[1]

The state of Illinois is one of the largest coal-producers in the union, and a great number of small communities depend entirely on coal mines, just as all industries of the state indirectly depend on coal for existence. Therefore coal-price regulation is of vital concern to the state at large.

A few years ago the writer visited a large number of coal mines in Illinois to ascertain if smokeless fuel for domestic and industrial purposes, to be used in Chicago,

[1] By Henry Misostow, Smoke Inspection Department, Chicago. Power. 46 : 563. October 23, 1917.

could be produced from Illinois coal. The investigation brought out the following facts: 1. There were a large number of independent coal mine owners; 2. coal fields were not monopolized and keen competition existed; 3. retail dealers of large cities were strongly organized and mine owners not connected with them had a hard time in disposing of their product; 4. large coal consumers practically dictated the price they would pay and scarcely paid anything in excess of the cost of production; 5. all profits of coal miners were made on domestic and small consumers; 6. coal as a source of heat was cheaper by many times than natural gas or oil; 7. if large consumers were compelled to pay their share, the price to the small consumer could be greatly reduced.

The effect of these existing conditions may be summarized as follows: 1. In the case of railroads cheap coal encouraged lavish waste; 2. large power-producing corporations, or so-called "central-station plants," were enjoying undue advantage over small consumers in the same line of business, or privately owned plants, thereby creating unfair competition; 3. the main burden was carried by the domestic and small consumer.

At present coal, as high as it is, is much cheaper than any other fuel used in the industries, and yet price regulation is of great importance and to the interest of the community. The coal bill may be reduced in two ways: First, by using coal properly and using less of it; second, by paying less per ton. Intelligent use on the part of the consumer will tend to conserve and enrich the community at large. Paying less for coal will decrease the amount of money changing hands and the state or country at large will not be affected, as the sum of wealth will remain the same unless the price of coal gets to a point to hinder industry. The price regulation of coal must have both these objects in view to be of real benefit to the people at large.

To make price regulation effective and just, the fol-

lowing points must be considered: 1. Price regulation must include all fuels—coal, crude and fuel oil, gasoline, kerosene and alcohol, and price must be based on the heat content that can be utilized; 2. the same grades of coal at the mines should be sold at the same price to all customers whether large or small; 3. the price should be high enough to compel proper effort to save and insure the stability of the industry; 4. eliminate all competition and oppression of small mine owners; 5. divorce the coal industry from the large consumers' influence, be they railroads or large central stations.

From the foregoing can be seen the complexity and importance of the subject, and therefore it must receive full consideration to insure justice to all.

LEGISLATIVE REGULATION OF THE COAL INDUSTRY IN INDIANA[1]

In the course of the opinion rendered by Judge Baker[2] he said:

Among the powers surrendered [by the states], of course, was the power over interstate and foreign commerce, treaty making, the war power, and others. But there remained to the people of Indiana, as absolute sovereigns, the whole of the police power over matters within the state. That means the power of the people to determine upon measures for the public welfare, which may be expressed by the legislature without any limitation that is not imposed upon the state by the Federal Constitution.

In such cases the right to exercise the police power is based upon the fact that they either had a public charter, exercising a public power, like that of eminent domain, or they were performing a public service. But there are other cases in which none of these elements of a charter, or the power of eminent domain, or a public service, or a devotion of property to public use, appears.

How about the laws, in this coal-mining industry, relating to the furnishing of timbers and props, and cages, and ventilation,

[1] From article by Jesse E. Eschbach, chairman of the Special Coal and Fuel Commission of Indiana. Coal Age. 19 : 412-14. March 3, 1921.

[2] Opinion of Judge Francis E. Baker sustaining the constitutionality of the act creating the Special Coal and Food Commission of Indiana, and dismissing the motion for a preliminary injunction of the American Coal Mining Company.

and the general taking away of the freedom of contract between the mine operators and the miners with respect to the conditions under which they shall work? Under those laws it was no longer permissible for them to barter about what should be done with respect to the conditions in the mines. There was an absolute standard fixed, and the mine operator was absolutely prohibited from doing certain things. Why that law? Because of the dominance of the operator it was found by the legislature that the men needed protection. The same thing is the basis of all our inspection laws. All of these things that are controlled in that way may be inspected, and the cost of the inspection charged against that particular industry, just as the examination of banks is charged against the banking business.

Those are all familiar restrictions. Thousands of them could be cited, but they are all over on the other side, and there is a clear line dividing them from the cases that are based upon franchises and the exercise of eminent domain—the employment of streets for water and lighting and transportation purposes. These have no basis at all except upon the power of the people to restrict the theretofore existing circle in which a person had his life, and the one within which he had his liberty, and the one within which he had his property, to bring these down narrower on account of conditions that were found to be oppressive to the people.

There is no infringement of the right of a man to hold property, if, under the power of eminent domain, it is taken from him for a public use and fair value of it is paid him. That is a constitutional thing, and there is no objection to it. So, when it comes to regulating the returns that he shall receive from his property, that is not taking his property; it is simply a control of his property as an instrument in his hand, with which the legislature has found that he has been bludgeoning the people.

There has been one statute that from the earliest times has stood over on this side of the line purely as an interference with the right of contract and regulating the price. Take the case of the lender making a loan to a man at usurious interest. Now, what is a loan? A loan is really a sale. Title passes at once. Money is a commodity. Bankers buy and sell money. Now, here is one line of business that never has depended, as a basis of control, upon the power of eminent domain, or a public service. It is private business. Nothing could be more private than the pawnbroker's business, and yet from time immemorial it has been unquestioned that the power existed to regulate that business by fixing the prices for money. I am unable to distinguish the underlying principle in that case from this, or from the statutes regulating rentals.

No dispute has ever arisen when health and morals were concerned. When you get down to welfare the question is frequently raised about financial considerations. But, of course, the state has a right to protect its people with respect to financial considerations. All of our blue-sky laws, and our married women surety

laws, and our laws restricting the sale of patent rights, and our laws controlling fire insurance rates, and our exemption laws, are all financial questions, looking to the welfare of the citizens of the state, and, ultimately, the welfare of the state, because the state has an interest in the welfare of all of its citizens and inhabitants.

But, as we have heretofore indicated, control of prices is known of old as a remedy for extortion. We are satisfied that the general power of the state to touch, in some way, upon the coal mining industry, exists.

The only question that can be involved in an attack on the constitutionality of the law is whether or not the coal industry is such an industry that it is affected by the public interest. With very few exceptions every hamlet, town and city in America would be in darkness; not a pound of freight and not a passenger would be moved; the wheels of industry would stop, and the population in America would be cold and hungry if the coal industry were to cease. No industry in America is so affected by public interest and so affects the public interest as does the coal industry, and it does not require the judge of a court or a constitutional lawyer to understand this.

With the act creating the Special Coal and Food Commission, the observations of Judge Baker as to the rights of the state not only to regulate the industry and fix the prices but to compel the production of sufficient coal to meet both the requirements of interstate and intrastate commerce, and with the knowledge that the people of the commonwealth of Indiana were being obliged to pay extortionate and unheard-of profits for their coal, the Special Coal and Food Commission undertook, before the severe weather of winter should come, to bring relief not only as to supply but as to prices.

The accountants for the Special Coal and Food Commission were assigned to the various coal-producing companies of Indiana with instructions to produce for the use of the commission the cost of each of said companies in the production of coal. Bearing in mind that the act provided that every person engaged in the coal

industry—operator, jobber or retailer—must receive a reasonable return on his investment, and that there must be no confiscation, the commission promulgated three orders.

Order No. 1 fixed the price of coal for the coal-producing companies of Indiana. In the preparation of this order the commission was confronted with the difficult problem as to the method and classification to be followed. Perhaps the most nearly correct economic method was to fix the cost of production of every producing company in Indiana and to this cost add a reasonable return and profit. To this method there were several objections.

There would be as many different prices of coal in Indiana as there were producing companies, and the entire coal market would be thrown into confusion. There would have been more opportunity for unjust treatment of the consumer; the method would have offered inducements for inefficient rather than efficient methods of production, and the prices fixed would have been subject to change with every change in the cost of production. This method was rejected because of said objections.

The second method was to fix the same price for all mines in the state of Indiana, which would necessarily have been the cost of production of the highest-priced coal in the state plus a reasonable return thereon. This would have afforded little relief to the people and would have given a large percentage of the coal-producing companies an abnormal and unreasonable profit.

The method finally adopted was to arrive at the correct cost of production for each mine and place the mines of the state in four groups. To the cost of production for the highest-priced mines in each group there was added a reasonable return, and the price of coal in that group was fixed for all said producing companies.

The prices fixed for the first group were as follows: For screenings, $2.80 per ton f.o.b. mine; mine run, $3, and prepared sizes, $3.25, to which the operator might

add 15 cents per ton if he maintained his own selling force. If the coal was sold through jobbers or wholesalers the producing company could not add the 15 cents but the wholesalers or jobbers were entitled to said 15 cents per ton, but there could be but one such 15 cent margin without regard to the number of jobbers or wholesalers handling the coal.

Group 1, which was the lowest price, produced approximately 73 per cent of all the coal in Indiana. The other groups were two, three and four, based on their cost of production. Group 3 was made up largely of wagon mines, which as a rule can exist only through the period of high prices and are compelled to haul their coal varying distances from the mine to the car. Group 4 was made up of the mines from which Brazil block was produced. There is a very limited supply of Brazil block coal in Indiana and such supply is constantly diminishing.

Order 2 fixed a margin for wholesalers and jobbers as indicated, or 15 cents per ton without regard to the number who might handle it. Order 3 fixed the margin for retailers, the general margin being $2.25 per ton, which would include all costs from the unloading of the car to the dumping at the curb of the consumer.

In a number of cities where labor and economic conditions were acute, the retailers were allowed $2.40 and $2.50 gross margins, there being an additional allowance of 25 cents per ton for anthracite and 25 cents delivery charge for part ton deliveries.

The retail coal business is in the same condition as practically every other retail business in America. There are at least 50 per cent, and possibly 75 per cent, too many dealers, and very few dealers handle sufficient quantities to give a reasonable return on the investment. We are further of the opinion that the equipment of 75 per cent of the retail coal dealers in America is antiquated, broken down or entirely inadequate, and the handling of coal is one of the most expensive businesses

because of the poor equipment and inefficient management.

Immediately upon the promulgation of the price-fixing orders there appeared what impresses the public as a concerted action on the part of the producing companies to deprive the citizenship of Indiana of Indiana coal. Many methods were resorted to, the principal one being the shipment of all Indiana coal out of the state. In order to meet this situation the commission issued its order No. 8, which is known as its allocation order, directing each producing company in Indiana to sell or order for sale within the state of Indiana a designated number of tons of coal, which was approximately 30 per cent of their output, or about the same percentage of Indiana coal as is used and consumed within Indiana.

It is to be remembered that during all the period from October 6, the day upon which our price-fixing order became effective, until November 29, the coal consumers outside of Indiana were still paying the exorbitant prices which made our act necessary, and had it not been for such act and the orders of the Special Coal and Food Commission the citizenship of Indiana would have paid such prices for the one and one-half million tons sold in Indiana.

The coal industry is the most thoroughly and minutely organized industry this country has ever known. It has its National Coal Association, its state coal associations and its district coal associations in all bituminous fields. The effectiveness of these organizations for the betterment of the industry itself perhaps cannot be questioned. Whether or not the public received the proper consideration is another question, and the past six months does not indicate that the associations have any particular care for the needs of the public.

I venture the assertion that the American people will never again submit to the extortion and profiteering which have been practiced by some of the coal operators within the past six months. The American people are patient

and long suffering, believing that their legislative bodies and their courts represent them in securing and maintaining their rights. For long periods they submit to economic oppression and injustice and extortion, but when they become awakened and realize the injustice and the perpetrators of such injustice they apply other remedies quickly, directly and drastically.

Some of the profits made by wholesalers, retailers and producing companies are unheard of and will never again, we believe, be tolerated by the American people. Every American citizen in principle denounces profiteering—the newspapers, the judges from the bench, the legislators, the merchants—and as a generality profiteering affords a wonderful opportunity for grandstand playing by the pettifogger and the profiteer himself. "Stop thief" is one of the most common methods of turning the public gaze in the public pursuit from the guilty to the innocent, and all profiteers, without exception, are perfectly willing to have all other profiteers, except themselves, regulated and punished.

BILL FOR COAL CONTROL[1]

A drastic bill for the licensing and regulation of the coal industry, and requiring full publicity of methods and profits in that industry, was offered in the Senate by Senator William Calder, chairman of the special committee on reconstruction. The bill is so broad that in "event of emergency" the President shall fix maximum prices on coal and control the production, movement and distribution of the commodity.

All coal producers and dealers who do a gross business of $50,000 a year, or more, are required to be licensed under the terms of the Calder bill. The measure creates no new government agency, but provides that the Federal Trade Commission, the Interstate Commerce

[1] From Coal Trade Journal. 52 : 61-3. January 19, 1921.

Commission and the Geological Survey shall jointly and separately collect information regarding the coal industry and make such information public for the benefit of Congress and the consumers.

Licenses are to be issued by the President on recommendation of the Federal Trade Commission. On recommendation of a majority of that commission licenses may be revoked by the President. Dealers and producers who operate without license are made subject to fine and imprisonment.

The Interstate Commerce Commission is charged particularly with the collection from railroads and steamship companies of information relative to the movement, loading and unloading, and reconsignment of coal shipments. The Geological Survey is directed to continue its reports on the coal industry and shall have access to the records of both commissions.

Senator Calder's bill, which has the approval of his committee, asserts at the outset that the proposed legislation is within the province of Congress in its right to conserve the public health, regulate interstate and foreign commerce, and exercise taxation. The bill carries a brokerage tax to check profiteering by dealers, this tax being graduated on the profits of each transaction.

The actual names of operators and dealers furnishing information under the law are not to be made public in the dissemination of such information—except in cases of profiteering. Then the names of the profiteers also shall become public. Governmental agencies charged with the enforcement of the law may go to the courts of the United States to compel obedience to their summons.

Senator Calder said he offered the bill as an emergency measure, but that additional legislation probably would be needed.

"A constant, sufficient supply of coal," said Senator

Calder, speaking for his committee, "at reasonable prices, is so essential to public health that we feel anything that looks toward that object may fairly be considered emergency legislation."

Reviewing the recent investigation of the committee, Senator Calder says this inquiry made more evident the need of legislation such as is proposed covering the coal industry. The statement continues:

Primarily, this is a bill to provide for current regular and impartial publicity by reports through government agencies of the essential facts concerning the coal industry and trade for the benefit of all concerned, instead of having the facts gathered by those in the industry and used or divulged only as suits their whim or purpose.

Our investigation has disclosed, first, that even after enjoining a government agency, the Federal Trade Commission, from gathering such facts for general use and dissemination, the bituminous coal industry, through their national association and branches have gathered from its members all that the Federal Trade Commission requested, and many more items. Second, that while these facts were then known to the coal operators, they have induced biased and self-serving publicity propaganda, even boasting of having gotten their story out through the Associated Press as Associated Press news.

Your committee believes a regular and impartial disclosure of the facts of the industry by districts as to supply, and mine costs and prices, will do much to prevent continuance or recurrence of profiteering

To enforce the giving of accurate figures the bill proposes a licensing system of all operators and dealers conditioned normally only on the furnishing of the required information. In any emergency threatening either unreasonable prices or a shortage in the coal supply, and public health, the President is authorized to fix thereupon maximum prices, commissions and margins, over the whole or any portion of the United States as conditions may warrant.

While profiteering has been both proven and admitted, there exists controversy as to exactly who is responsible and to what extent. For example, as to the nine hundred thousand tons purchased by the War Department on the spot market in 1920 the figures show that an average mine price greater than a reasonable original mine price separated such price from what the government was forced to pay, to wit, an excess of $3.80 per ton average for the whole amount bought. How many resales and profits this represents in the different instances only a complete tracing of each carload will disclose.

To meet such a situation (and the committee feels such legislation will be helpful on the high cost of living in other lines), the bill has a provision taxing brokers' sales above a certain margin for sale of coal had direct from the producer, and taxing such sales to a much greater point on subsequent or useless pyramiding sales between dealers. This is calculated to drive coal in a direct channel from producers to consumers and keep it out of the whirlpool of endless commissions and margins.

To prevent profiteering through subsidiary or profiteering concerns, a practice which has become quite general, the bill provides against such interested inside dealings by provisions similar to Section 10 of the Clayton Act prohibiting such dealings in the case of railroads.

The bill is based on the public health and welfare, on interstate commerce, and on the taxing powers. The committee and its staff have carefully considered the bill and we believe its prompt enactment will be a distinct forward step and will accomplish much, both as a remedial and preventive measure.

DENMARK AND INDUSTRIAL CONTROL[1]

Denmark believes in the public controlling, but expertly controlling, all enterprise that affects it. To this end a legislative program has been proposed, the main feature of which would be to put all industry under the direction of a National Business Council. This council would work toward three principal objectives: First, the fixing of prices on the basis of fairness to capital, labor and consumer; second, participation of labor in the direction and management of industry; third, regulation and restriction of profits.

The composition of the Business Council is outlined as follows: sixteen members would constitute it, four to be appointed by the Rigsdag, eleven by the Minister of the Interior, the chairman to be named by the government. Four of the eleven members chosen by the Minister of the Interior are to be of his own selection; of the seven others three must be appointed from nominations by the Federation of Trades Unions and one each from nominations by the Industrial Council, the Employers' Association, the Joint Committee of Danish

[1] From Nation's Business. p. 32. April, 1920.

Merchants and the Federation of Profit-sharing Corporations. Each member of the Business Council is to have a deputy chosen in the same manner as himself.

The function of the Business Council will be to watch over industry for the purpose of making recommendations to the Minister of the Interior concerning measures for the promotion of business, and to prevent individual concerns making undue profits or operating in any manner detrimental to the social welfare.

If any concern is believed to be operating on too large a profit, or suspected of activities against the interests of the community, the Business Council may take it under direct supervision. Such firms will be obliged to submit their annual accounts to the council and give the council any other information required, to ascertain the exact status of the industry, including conditions relative to production and sale of the commodity being marketed. But no firm may be required to divulge secret processes of a technical nature. Refusal to give any other relevant information upon demand of the council is punishable by a fine ranging as high as $268 a day. In enforcing its decisions, the council may make use of the services of state and municipal authorities.

The law provides that if a firm is found to be making an unreasonable margin of profit, whether this appear in dividends, increased capitalization or any other form, the council may recommend to the Minister of the Interior a price at which the commodity made by the firm should be sold. When prices have been fixed the proposed law would make it illegal to charge higher prices for it, and each offense would be punishable by a fine at least ten times as great as the amount of the extra profit realized from the exorbitant charge.

Upon recommendation a limit also may be fixed for the annual surplus earnings of any industrial enterprise. If the accounts show an amount above this limit, the

excess sum may be appropriated to the public exchequer or devoted by the firm to the reduction of prices for the following fiscal year. Information received by the council in reaching decisions is to be open to the public.

The second law in the program would give employees a part in the direction of all business enterprises employing five or more workmen. This covers specifically enterprises classed among "industries and crafts," but provides that organizations of other kinds also may be included upon request.

It proposes that details of this participation shall be a matter of agreement between the Danish Employers' Association and the Federation of Trade Unions of Denmark; but that such agreement shall assure the employees the right of participation in the control of the observance of work agreements and of decisions relating to workmen's safety legislation; in the employment and discharge of workmen and their nearest income reports.

It further is provided that this participation shall be exercised by means of separate control committees for each enterprise, these committees to be chosen so that half of their personnel shall consist of employees and the other half of the heads of trades unions represented in the industry. Those chosen from the active employees shall be selected from the men who have been longest in the employment of the company. Each concern is to have as many committees as it has separate businesses or independent departments. All misunderstandings, either as to the agreements or their interpretation and application, must be referred to the Business Council, whose decision is binding.

Regulation of profits is provided for in the third measure proposed. This law would make all profits illegal except one profit for the manufacturer or importer, one for the wholesaler, and one for the retailer. It also provides that goods shall be so marked that the

customer may ascertain the name of the producer if of domestic make, or of the importer if of foreign manufacture. The factory or import price must be marked upon each article.

PRICE CONTROL AN ECONOMIC MISTAKE[1]

During the war the price of coal was fixed by a Fuel Administration created by the President to take over the price fixing and regulating functions under the Lever Act. The proposal to revive the price-fixing policy in regard to coal is the first serious proposal to carry our war powers and our war policies on into the period of peace.

I think there is considerable doubt as to the constitutional power of the Congress in times of peace to fix the price of coal. While war powers do not necessarily end with the war, yet the power used must bear some reasonable relation to war. A general price-fixing law relating to coal is not a regulation of commerce within the meaning of the commerce clause of the constitution.

Close observers know the history of coal production. An unprecedented demand occurred during the war for coal. Coal for factories, running night and day, coal for locomotives consuming coal as never before in the war's transportation; coal for ships, coal for export, an unprecedented demand upon every hand. The price began to go up. Coal was not a commodity of which quantity production waited the mere order. It is found in beds. It must be drilled for and discovered. When found expensive shafts requiring considerable time for sinking and expensive machinery were a necessary antecedent to its production. Only a few men could work in opening the mine until entries were slowly driven allowing others to be employed. Cars for the trans-

[1] From letter of Everett Sanders, Representative from Indiana. Coal Review. 1 : 5-6+. December 15, 1920.

portation of coal were not available in sufficient numbers. Thus were presented the practical difficulties in the way of laying down the coal in the yards where and when it was demanded.

Production and Prices

The Fuel Administration tried in many ways to increase production, for that was the crying demand, but since the prices went up in response to the demand the administration bent its efforts toward beating down the price, apparently without realizing that this was decidedly the most effective method of curtailing production. The prices were fixed, however, so that in most cases a fairly liberal profit could be made.

All the bulletins, all the appeals for patriotic haste in the coal mines, all schemes for economy and saving in operations amounted to a mere drop in the bucket of increased production. The rest of the bucket was the opportunity for profit in investment. Because of this opportunity wagon mines were opened, strip mines were worked, abandoned mines were rejuvenated, low veins were operated, and coal began to roll into the market.

If more liberal prices had been permitted the production would have shown a correspondingly liberal increase. However, the great demand was not allowed its full sway in influencing production for an arbitrary rule supplanted it. Otherwise there would have been heavier investments in new mines and greater production. The new capital found its way into more profitable channels unhampered by arbitrary price fixing. Increased production would have driven the price down.

We are now suffering from high prices, too high, in many cases exorbitant, but if the flow of capital into coal production is permitted, investors vying with each other in their anxiety to make money will bring the

prices down. That is the only possible method by which you can have the two desired objects—abundant production and reasonable prices.

The price, if fixed, must of necessity, be uniform in any given section of the country. If fixed so that the heavy producing mines make merely a reasonable profit, the wagon mines and other mines which are unable to produce coal at such price must, of necessity, immediately shut down.

It is argued that we fix the freight and passenger rates for railroad companies, and electric lines and the gas and electric light rates and that the production and distribution of coal is a parallel case. There is the clearest fallacy in this argument.

Railroads are common carriers and quasi-public corporations. They are granted the right of eminent domain and may take the property of any individual for their tracks by merely compensating the owners. They are granted franchises and valuable public rights frequently amounting to a monopoly. Gas companies, water companies, electric companies nearly always act under exclusive franchises, which amount to a monopoly. Even then the rates must yield a reasonable return on the investment.

According to your figures, the retail price of coal in Massachusetts is 100 per cent greater than before the war. The retail prices of Massachusetts shoes have increased more than 100 per cent in Indiana. However, I am just as much opposed to governmental regulation of the price of shoes as I am the price of coal. It is a short-sighted policy—a sad economic mistake.

People of the country are weary of governmental regulation, of paternalistic legislation, of socialistic management. The government should once more deal with governmental functions.

Let private initiative and enterprise, individual skill and industry have an opportunity, and in the natural

laws of competition and the normal laws of supply and demand, you will get relief more rapidly and more equitably.

ARGUMENT AGAINST THE COMMITTEE'S REPORT[1]

I. Other Elements than Large Profits May Enter into High Prices; Some of these Elements are not Susceptible of Direct Control

Since the European war began there has been much inflation, as is usual in war-time. The results of inflation in one market spread to all other markets which deal with it. Consequently, even before the United States entered the war increased currency and credit in other markets had caused our prices to rise. The degree of the rise in prices brought about in this way cannot be stated definitely, but it has been considerable.

Other influences on prices are international. The withdrawal of large numbers of men abroad from their usual occupations, that they might enter military service, and the transfer of other men in large groups to the special industries of war, likewise influenced prices upward,—not only prices in belligerent countries but prices in the United States. Acquisition by foreign governments of large supplies of commodities, and their requisition of great quantities of raw materials which ordinarily come to our industries, added their effect in raising our prices. Finally, much labor in the United States itself was attracted into special industries organized and operated to furnish articles used in war.

These influences have now been heightened by our entrance into the war. They are independent of any increase in profits to our industries which produce articles as to which control of prices might be used. Moreover,

[1] From Chamber of Commerce of the United States. Referendum no. 22 on the Report of the Special Committee on Control of Prices During the War. p. 11. Washington, D.C. September 12, 1917.

these influences are largely beyond the possibility of being affected by any direct governmental action with respect to prices as such.

II. Production is more Important in the National Interest than Prices

Any control of prices that is considered successful will presumably place prices at a normal figure,—i.e., at the point they would have if unusual profits are prevented. It may prove impossible to ascertain such prices, or to keep them normal in the midst of conditions of daily and violent change.

In such a situation there is a great danger that prices will be placed too low. The danger lies in the possibility that the prices which are allowed will lead to decrease in production at a time when greatly increased production of all the articles which in any way support war is of the highest importance in the public interest. In fact, so far as high prices stimulate production, and do not merely accrue to persons who have cornered stocks of goods, high prices may be argued to be desirable in the national interest. There is more public advantage in an abundance of the articles that are needed than in the price that is paid for them being low. Undue profits, whether sought in the ordinary processes of trade and industry or through monopoly, should be dealt with separately.

III. Economy in Consumption May Be More Important Than Prices, and Is Promoted by High Prices

High prices in themselves lead to decrease in consumption in ways that are not essential. In other words, they automatically prevent waste. They likewise lead to search for substitutes which can be obtained more cheaply. These tendencies are very valuable in conserving and directing available supplies, and they make any

attempt at control of prices for essential articles a possible detriment to the national interest.

Such a tendency toward detriment cannot accurately and universally be prevented by apportionment of supplies, according to preferences which correspond to the importance of needs. Such preferences can at best be adjusted only approximately.

IV. Control of Prices for One Article Necessitates Consideration of All Related Articles

Prices are relative. If the price of an article which an individual or industry uses or produces is changed, the new price has a bearing upon the prices of all other articles used or produced. The relation of prices for corn and meat and for coke and pig iron are obvious and merely illustrative of a simple interdependent series. The prices to which any producer is limited for an article he sells at once become important to him in their relation to the prices of all articles he purchases, either for use in industry or for his personal consumption. Control of the price for any one essential article may have remote and unexpected consequences. Such conditions may illustrate difficulties which make inadvisable any attempt at direct control of prices, and suggest the desirability of more indirect methods, such as supervision of the channels of production and trade, to see that they are kept free, taxes on profits, and such methods in public finance as will keep inflation of credit to a minimum.

GOVERNMENT PRICE CONTROL[1]

Naturally, those interested not only in coal mining, but in any other industry, are opposed to any form of government price or other control, one of the most in-

[1] From National Anthracite Bureau of Information. Philadelphia. 3p. Mimeographed. November 28, 1921.

ducing reasons therefor being, as experience has shown, that it destroys initiative and rewards inefficiency.

Direct price control, by government, or any basic commodity involves: a. direct control of the labor going into production of commodity; b. direct control of prices of supplies needed in production; c. direct control of transportation rates; d. indirect control of everything into which the originally controlled commodity enters.

It is obvious if, for example, the government should undertake to control the price of coal to the consumer that it would have to take into account the cost of labor, supplies, invested capital, and transportation. If it did not control these factors it could not control the price of coal, but would have to increase or lower price schedules as these elements varied. The only alternative would be to peg coal prices arbitrarily, and to make up any deficit which might result by taxing the entire public.

It is also obvious that control of fuel would, for example, lead to indirect control of steel. It takes one ton of coke (or about one and six-tenth tons of coal) to make a ton of iron from ore; it takes perhaps another ton of fuel to make a ton of steel from a ton of pig iron—say two tons of fuel represented in every ton of steel. It follows that any control of coal would powerfully affect steel. If the coal prices were too high, it would unduly burden the steel mills; if it were too low it would be subsidizing the steel industry at the expense of the general taxpayer. The same argument applies to artificial gas, dyes, perfumes, drugs, photographing chemicals, road making materials, tar roofing and synthetic flavoring materials derived from coal.

The two main cost factors entering into the price of coal being paid by the consumer today have been put there by government control—the price of mine labor, fixed by the Fuel Administration during the war and increased by the United States Anthracite Commis-

sion in 1920; and the freight rate on coal, established by the Interstate Commerce Commission.

The modern argument for coal control is based upon the fallacy, or rather half truth, that coal is "charged with public use." The inference is, of course, that other things aside from transportation and some public utilities, are not charged with public use and therefore are not subject to control.

But, while fuel is a great modern commodity, it is not a public essential in nearly so great a degree as many other things.

The prime necessity is food, but government control of the farms is never suggested.

The second essential is clothing, but government control of the wool and cotton growers and manufacturers is never suggested.

The third essential is shelter, but government control of brick, lumber, sand, stone, lime, slate, plumbing supplies and concrete is never suggested.

It is a fact of history that there were very considerable civilizations built up in ignorance of fuel, in the sense the word is understood today. For example, there was no coal mining in England until the reign of Edward III. There was no anthracite mining of consequence in this country until 1820, and the total commercial production of that year was only three hundred and sixty-five tons. People lived in this country from 1607, when Virginia was settled, until 1820, and really knew nothing of fuel in the modern sense. They could not have lived two hundred and thirteen days, much less two hundred and thirteen years, without food, clothing and shelter, as the colonists of Massachusetts Bay discovered very early in their experiment.

The real answer is that no commodity is "charged with public use" in the sense which makes it subject to public control, or that every article which the public necessity, convenience or pleasure brings into widespread use is "charged with public use" and is a logical

subject for public control. The proposal to control selected things and allow others freedom is illogical and in practice must inevitably throw the entire economic structure of the country out of alignment.

PRICE-FIXING POLICY OF THE GOVERNMENT [1]

It was remarked in the leading editorial in this paper a week ago that the price-fixing policy upon which our government has embarked is even at the present early stage of its application encountering some of the perplexing difficulties and problems which were unavoidable in view of the highly complex and intricate interrelations and concatenations of things one with another in the industrial and commercial world. It was said in that article that when price-fixing is once begun there is no stopping it at any given point that may antecedently have appeared appropriate and expedient. Unsuspected relativities of prices seemingly unconnected suddenly assume importance and influence for the minds of all manner of persons affected. To use the parlance of the technical economists, a veritable witch's dance of marginal costs of production and marginal utilities is set in motion. The apparent safeguarding of the interests of one class of people in the community is unhappily found so to prejudice the interests of other classes—or parts of classes—of people as to diminish their productive energy and efficiency; and then comes an unfortunate repercussion for the very classes it had been intended to benefit. It had been hoped, for example, to give the consumers of coal lower prices and at the same time more coal, seeing that the demand for coal is intense in every direction. It is found, however, that with the lower prices the consumers get less coal, instead of more, owing to the inability of some producers of coal —the least efficient and the least well-equipped, if one

[1] From Economic World. n.s. 14 : 436-8. September 29, 1917.

please, yet all necessary—to produce coal at all except at the higher prices done away with. And so with a multitude of illustrations that might be given.

It may be said that there is virtually universal agreement in the principle that war profiteering is abominable and ought to be held in rigorous restraint—the only disagreeing parties being those who are engaged in the profiteering. It is, of course, the primary object of governmental price-fixing to prevent war profiteering in as large a degree as may be possible. Yet it must be confessed that the observable actual effects of governmental price-fixing are very far indeed from corresponding with the results actually desired. When noting these effects, indeed, one finds it difficult to avoid wondering whether the entire theory and practice of price-fixing are not unsound and therefore really harmful, rather than beneficial, to the public welfare. The economic experts seem to think that this is the case, and it is certainly hard to find convincing arguments wherewith to controvert their opinion.

PRICE FIXING BY LAW[1]

In theory, state intervention may adequately secure the control of prices; but in order to accomplish this we are driven to accepting state socialism, which means the ownership and control by a centralised government of the means of production, distribution and exchange. Is, then, such a system capable of being successfully handled in a modern democratic community? Let us picture the state as the owner of all primary products —agricultural, pastoral and mineral, as well as of the manufactured article and the means of transport. In practice the state is the sole employer of labour; the employees, in their turn, consist of a huge army of workers enjoying and ready to make use of the Parlia-

[1] From article by C. G. Wade, Agent-General for New South Wales. Fortnightly Review. 112 : 692-704. November, 1919.

mentary franchise. The government of the day will be confronted with unceasing demands for higher wages, shorter hours, and improved conditions of life by the workers, who are also the electors. The pressure of such claims, especially at election time, will be almost irresistible; a refusal will imperil votes, acquiescence must, as we have seen, lead to an increase in the cost of living. The government will next be met by united protests from the consumers that a limit must be placed to the rise in wages; whilst the workers will demand a limitation of selling prices, with perhaps a suggestion that, if the reduction in prices leads to a loss, the state may and should subsidise each occupation to the extent of its loss by a contribution levied from the general taxpayer. These varying interests are all conflicting—one section bidding against or inciting another, but all united in the determination to coerce the common employer, represented by the government, or punish non-compliance at the ballot box. What ministry could weather such a test? It is hard for the government to resist, even today, the clamour which is directed against private ownership on account of the growing cost of living. I venture to state that the ministry has not yet been created which is endowed with such a sense of public duty as to resist organised claims of this nature by the whole body of electors, when the alternative must mean political defeat. Public office and ministerial responsibility will be put up to auction amongst a body of constituents, bereft under this system of all laudable ambitions and strangers to efficiency.

What has been the history of other countries with regard to these matters? Does their experience tend to comfort us or to confirm the objections above-mentioned? The earliest modern example is afforded by the people of France during the end of the eighteenth century. The disturbances in the early days of the revolution had led to a sad dislocation of trade, scarcity of provisions and an intolerable increase in the cost of living. Repub-

lican committees were called upon to provide a remedy, and the people were insistent on limitation of cost. Maximum prices were, therefore, fixed which momentarily produced contentment; but the inevitable laws of supply and demand at once operated, commodities were withdrawn from circulation or were no longer produced, trade languished, with the result that the necessaries of life were either unobtainable or to be purchased only at famine prices. The authorities struggled for some time to maintain their objective of limitation of prices, drastic penalties were inflicted for that purpose, but famine prevailed and public opinion was rebellious. In turn there arose a wide and insistent claim for the repeal of these restrictions and a return to freedom of trade; and in two years or less the law of maximum prices was abolished amidst general rejoicing.

It was in New South Wales that the first attempt was made to regulate the prices of necessary commodities in Australia. This policy was launched before a scarcity from a pressure of war conditions had arisen, and was the outcome of high wages and consequent high prices. The workers put forward a demand for the limitation of the cost of commodities, whilst they were to be permitted to receive higher wages. The government yielded, and the test was first made in respect of butter. A period of dry weather in the dairying districts, which affected the pastures, had led to a reduction in the production of cream and an increase—consequent upon the scracity—in the price of butter. The rise in the selling price was not in fact serious, but in response to a demand made by the public the government appointed a commission, who took power by statute to fix the price of any commodity necessary for the support of man or beast; and, *inter alia,* a maximum price was fixed for the sale of butter. At that time there was a prospect of large demands for meat for European countries and for the Allies who were engaged in the war, and prices were fairly firm. In these circumstances it paid the

dairyman to sell his cows to the butcher, and to lease his land for pasturage purposes to those who desired to fatten stock for the export trade. In a short time the threatened scarcity became a reality; there was no help obtainable locally, for the adjoining states were unable and unwilling to place their produce on the New South Wales market at a figure which yielded them no profit. At this stage even the removal of price limitation could not secure redress, as the product was no longer being manufactured. The only alternative, therefore, in response to the continued demand, was to import the commodity from overseas. In due course shipments of butter arrived purchased in America, but it was found that the cost per pound of the imported article, after paying freight and charges, was in excess of the maximum price previously declared for local sales. The government were, in consequence, faced with the dilemma of selling at a higher figure which was commercially profitable (and thereby acknowledging that their previously declared maximum price was a mistake), or to sell at the fixed price and ask the taxpayer to make good the consequent loss: they adopted the latter course. This experience was repeated shortly after with regard to wheat. The dry season had affected the crops, and it appeared possible that importation from outside sources might be necessary to meet local requirements. There was also a danger of prices of bread rising in consequence of the reduced supply of flour. Here, again, the commission stepped in and fixed a maximum selling price. The farmer found that it was more profitable to convert his growing crops into hay than to allow them to be harvested for the miller. Those, again, who held stocks were suspected of withholding them until the restrictions should be removed and prices should rise again; but so far as the public were concerned, the old story was repeated—an actual scarcity in the state was established; importations from adjoining states were discouraged by the insufficiency of the declared selling price;

and the government were again compelled to resort to importations from overseas to meet the urgent food requirements of the community. Large consignments of wheat subsequently arrived, but it was found that the cost of the commodity landed in New South Wales was per unit in excess of the fixed maximum local selling price, and the state suffered a heavy loss in selling at the figure previously decreed. An attempt to control the price of hay produced like results. Later on, when the stress of war conditions pressed upon the people, a limitation of prices was imposed in respect of many commodities by both Federal and state governments.

There was no uniformity amongst the states of Australia in the matter of fixing prices. In New South Wales and Queensland control was rigorously maintained, and in Victoria it was only enforced for the prevention of undue inflation and the restriction of supplies. In South Australia very few prices were fixed, and in Western Australia legislation was virtually a dead letter, whilst in Hobart no action was taken. These facts give peculiar interest to figures published by the Commonwealth Bureau of Statistics in October, 1916, showing the purchasing power of money. The figures, relating to forty-six items of food, including groceries, meat and dairy produce, indicate the amount required at the beginning of 1916 to purchase what would have cost £1 in the year 1911. They are as follows:

	£ s. d.
New South Wales	1 11 4
Victoria	1 10 2
Queensland	1 11 0
South Australia	1 11 0
Western Australia	1 10 1
Tasmania	1 11 10

These figures indicate that the increase in the cost of food was just as great when price fixing was rigorously administered as when trade was unhampered by regulations. It would seem fair to conclude that limitation

by law is not the only factor which has a controlling influence on rising prices.

In New South Wales during recent years protests became frequent against the rents charged, especially against the owners of houses occupied by the workers and persons with small incomes. The awards of the arbitration courts had led to an increase in the cost of building materials and the labour required for construction. Inevitably, if the rents went up to a figure which left only a reasonable commercial profit, the rise would be substantial. The government of the day met this difficulty in two ways. One was by erecting a number of houses at the expense of the state. The cost of the land was nominal, being Crown land; the houses were built on hygienic lines, and the rent asked was on a commercial basis; but it was found that the figures so quoted were quite beyond the means of the class for whom the buildings were intended, and they were occupied by a section of the community of a higher social grade. The other scheme was the establishment of a court to regulate rents. The machinery was simple and intended to be expeditious, and for their guidance and the protection of the landlords, the tribunals were enjoined by statute to secure to the owner a certain minimum return upon money expended. On the whole this court gave limited satisfaction, for although in some instances the rents were reduced, it was found that but a small percentage of claims which came before the court represented an unfair rent by the landlord. The problem still remains unsolved. With the increased cost of labour and materials, if the builder of a new house cannot secure a reasonable return on his money, house-building will be discouraged, the demand will exceed the supply, and the scarcity will probably result in still higher rents. On the other hand, if the rent fixed is sufficient to encourage investment in house property, then the figure will be so high as to create disappointment amongst

the working classes, and a clamour for further state interference. Today, there is a scarcity of houses throughout all the Allied countries on account of the cessation of construction during the war, and the emergency must be tided over. A proposal of the British government to meet the present difficulty may help to solve the difficulties for the time being, but involves the taxpayer indirectly or directly in making good the difference between the fair interest upon the cost of the building and the actual rent charged to the occupant. This emergency treatment may solve the present house difficulty, but the policy is dangerous if made permanent, and may lead to extraordinary results, if the difference between the cost of production and the price demanded by the consumer for the finished product is to be always borne by the taxpayer.

In Queensland and Western Australia the state became the owner of certain state enterprises for the purpose of cheapening commodities to the public. In the latter state the financial results were not satisfactory, but the Queensland government claim to have secured, through the agency of state butchers' shops, a substantial cheapening of meat to the community. That the meat in state shops was sold at a less price than demanded by butchers is admitted, but critics assert that whilst the government purchased the stock of the state at a fixed price for export and war purposes, there was a collateral stipulation that a certain proportion should be diverted to the government at a lesser price for home consumption. I cannot verify the charge, but it has been publicly made, and until disposed of, the success of state butcheries must be accepted with reservation.

In England during the war the government intervened in the sphere of agriculture, and fixed a selling price for all staple products, made provision for a minimum wage by statute, and imposed on farmers an obligation to cultivate. The mercantile marine was commandeered by the state, who paid for the hire of the vessels and

fixed the rates of freight. All engineering firms in the United Kingdom were controlled, prices were fixed for materials and for the finished product. The books of various firms were carefully examined and the cost of manufacture worked out in minute detail, and eventually practically all food products were controlled in respect of selling prices by the government. In all these cases the ownership remained technically with the private individual or corporation, whilst the government exercised control, primarily for the purpose of concentrating effort upon the successful prosecution of the war. It must be admitted that profiteering was checked by these measures, and there is no doubt that, without such control, the public at large would have been exploited—to what extent it is hard to say; but, as I have already stated, extreme care must be exercised in drawing conclusions from this unique experience. We should remember that the nation was engaged in a struggle for existence; it was not self-supporting; the issue was often in doubt; supplies from overseas were imperilled by submarine warfare; the claims of the soldiers were paramount; and costly mistakes were inevitable, in the endeavour suddenly to establish machinery which would protect the public from abuses; but the situation was cheerfully faced. The whole community was animated by a patriotic fervour; the producers were less restive than they are today; the workers loyally responded to the invitation to increase their output; the consumer submitted to many hardships, and even to the heavy increase in prices without protest, satisfied that it was no time to complain, and believing that indirectly he was thereby contributing to ultimate victory. But it must be admitted that there were many, too many, unscrupulous people who endeavoured to benefit themselves at the expense of the country; some even were successful in evading the drastic conditions of price limitation; and the question remains, now that the patriotic incentive to submission has been removed and the appetite for private

gain is roused, whether such a scheme of price-fixing can be effective in times of peace.

Whilst we are prepared to admit this policy, in specially favourable circumstances, attained some measure of success, yet it manifested certain inherent weaknesses. It is the general opinion that, in spite of the above-mentioned favourable conditions, prices when eventually limited, were unduly high. In the early days of soaring prices the government, uncertain of the duration of the abuse, hesitated to take remedial action. In the interval the cost of living continued to rise in all directions—some persons in good faith had bought at excessive prices and were making only a legitimate profit—and, when the state eventually intervened, they were met with the alternative of severe reduction and a dangerous opposition from vested interests, or fixing a price so high as to leave the profiteer sufficient gain to disarm his active opposition. In the second place it was found in practice that the maximum almost invariably became the minimum. It has been admitted by the Food Controller that all grades or qualities ceased to exist and were impossible to maintain. In such circumstances there was no obstacle to the seller demanding for his commodity, whatever the quality, the highest price limit under the law. We are now in a position to draw the following conclusions. Under a system of private ownership:

1. It is impossible to prevent the diversion of capital if the price fixed is not satisfactory to the producer.

2. It is almost impossible for the state to fix a selling price which is fair to both the producer and the consumer.

3. Under a system of state ownership and control a scarcity of commodities may be prevented. A price can be fixed in theory which is fair to all interests concerned; but nationalisation tends to destroy discipline, to kill ambition, to ruin efficiency, and eventually to increase cost.

Some scheme, therefore, should be devised which will

involve a minimum of interference with trade and commerce, will maintain freedom of competition, allow of combinations to increase output on lines of economy, but will prevent abuses arising from withholding goods and creating an artificial scarcity. In other words, it should encourage the honest man and deter the unscrupulous.

I confess that I know of no formula to cure the complaint of high prices solely arising from high wages. If goods cost more to produce the owner is entitled to his reasonable profit on the added cost. I cannot see any justice in depriving a manufacturer of a portion of the cost of production. On the other hand, if the worker earns more he should be able to pay more for his commodities. Employer and employee can to some extent relieve the position themselves, the one by economy in production, the other by efficiency of labour, contributing its part to economy of production.

As to high prices caused by "combines" and by withholding supplies, different considerations apply. One trader conceals supplies and takes advantage of the helplessness of his fellows to extract money from them. Such a person is the enemy of the community, and deserves scant consideration. We are all the victims of profiteer-at present. We were told that prices would fall on the release of state control, but daily the position has become more intolerable. Prices are now higher than on the day of the armistice. We are unable to say who is to blame, through want of correct information. In some cases high prices may be justified, and in others they are indefensible. In the meantime all producers and manufacturers are suspected, and the public who are suffering are very deeply resentful and nervy. The first step toward a change should be through inquiry into the cost of production. The profiteer and the trade combines work in secret, and they fear nothing more than a searching investigation of their methods. Publicity will disclose the truth, and public opinion can then be formulated on a sound and influential basis. This pro-

cedure will relieve many people from an unfounded suspicion; at the same time extortion will be publicly pilloried. As has been well said, "light is the sovereign antiseptic and the best of all policemen." The tribunals of inquiry should be carefully selected and be judicial in character, with full powers of extracting information on oath; and any persons implicated should be entitled to be heard in defence. With its vast experience of costing, acquired during the war, the government should be able, without delay, to check evasions and expose deceit, and very materially curtail the length of the inquiry. To prevent oppression the tribunal should only be set in motion on the initiative of the Crown. After a full investigation as to the cost of production and allowing for a reasonable profit, the tribunal should report whether the prices charged are reasonable or excessive, having due regard to all interests concerned—producer, employer and consumer. The finding should be made public, and if prices remain unchanged further proceedings may thereupon be instituted.

This machinery (which has been in part adopted by the government in the recently enacted Profiteering Bill) should be potent to break down combinations to exploit the public. Traders, who are the victims themselves of high prices, should welcome an inquiry, whilst the fear of exposure and loss of trade and reputation will be a powerful incentive to everybody to reduce his price to a figure which will leave him only a profit which can be justified. Thus, much-needed relief can be at once obtained without dislocation of trade or penalising the public by fixing prices upon too high a basis. The wholesaler as well as the retailer must submit to the test.

PRICE FIXING BY GOVERNMENT[1]

If there is no omniscient being to fix prices, there must be a great many ordinary human beings; some

[1] By David McGregor Means. Unpopular Review. 9 : 312-27. April, 1918.

ignorant, some arbitrary, some acting on one theory, some on another, and some on none. It may be possible for the farmers, the dealers, the millers and the bakers to agree on a scale of prices. But by doing so they would engage in an illegal combination of most hideous mein. For years our legislatures, our commissions, our prosecutors and our courts have been trying to crush monopoly, at a frightful expense to the whole community. All this apparatus is still in existence. It is partly paralyzed, but its disastrous expense continues. The policy of fixing prices began with the regulation of business of transportation and other public services. The charges of all concerns engaged in such business were enormously increased, and they were forbidden to increase their income.

Dr. Garfield was made Fuel Controller on August 24th. He announced that the big dealers, and the "efficient" little dealers, would be supplied "with the coal they needed at the prices which the government believes will make it possible for the government to meet all conditions imposed. The public, I am firmly convinced, will get coal at the scale thus fixed." It was not until October 27th, when the situation became alarming, that Dr. Garfield admitted that the attempt to do business on benevolent principles was a failure, and the price of soft coal was raised to a figure corresponding with market conditions. It has since been several times increased.

It was too late. What had happened meanwhile? In some parts of the country the normal production of coal had been reduced. In many parts the usual stock had not been laid in. Some consumers relied on Dr. Garfield's promises, and did not fill their cellars. Some dealers did not accumulate a large supply, for fear it might be seized. Some coal miners did not supply their best coal, but worked their inferior veins. Some coal was not carefully picked over, and gave out little heat, as many householders found out to their ultimate distress. The price of coke was not fixed; it rose to $6 a

ton or more. Now three tons of bituminous coal will produce, approximately, two tons of coke. Three tons of coal, sold for $2 a ton, brings $6. Two tons of coke, sold for $6 a ton, brings $12. One must be more than ordinarily benevolent to sell coal at a loss when coke can be sold at such a profit.

Dr. Garfield seems to have meant to favor the consumers of coal at the expense of the producers. He has no doubt caused loss to some producers; but he has caused greater loss to many consumers. The poorest of them have suffered most. They have had to pay very high prices. Some of them could get no coal at any price. They have had to pay great sums for stoves, and gas and oil. Millions of our people depend on kerosene for light and heat. Owing to the great demand for gasolene, kerosene had been cheap. It was almost the only cheap thing consumed by the poor. But the sudden demand for it raised its price, and those who depended on it were thus taxed because the production and distribution of coal had been interrupted by the attempt to fix its price.

In every age rulers have arbitrarily "commandeered" the goods of their subjects, commonly on the ground that they were "profiteering," or hoarding. This has sometimes for a while profited the rulers; it has never profited the subjects. Some rulers may have acted from benevolent motives. They have thought that they could take from some and give to others, with benefit to the whole people. The processes of confiscation and redistribution are always ruinous.

In a free country, prices are fixed as resultants of millions of forces. Men are universally seeking their particular interests, using their individual knowledge, exercising their individual wills. The state could attain the same results only if its agents used their individual knowledge and their individual wills. They can do nothing of the kind. The conflict of individuals moved by their interests results in promoting the interest of all.

The conflict of rulers can have no such result. They have no such motive as their interest. They are paid out of the earnings of their subjects; the state has no other revenue. The compensation of the individual subject depends on himself. The compensation of the ruler does not depend on himself. If all our rulers had the same purpose, and adopted the same permanent policy, if they all knew how the fixing of the price of one thing would affect the prices of all other things, hereafter as well as now, if every one of them knew all the prices fixed by all the others, if in every individual case he possessed the knowledge and exercised the will that was possessed and exercised by all the subjects for whom he is substituted, the theory might be applied in practice. Otherwise nothing but confusion and disaster can result.

COAL PRICES[1]

The coal industry must remember that it handles one of the most vital necessities for the welfare of the country. We are really in the position of a public service corporation, but so far have escaped the local, state and Federal regulations under which they are compelled to work. This, my friends, will not last if we do not regulate our own business in a manner satisfactory to public opinion. The time has passed when this could be done, although some do not seem to have fully grasped the fact as yet. Some companies seem to think they are a law unto themselves and that they can conduct their business without regard to the effect it will have on the trade as a whole. These are a menace to the welfare of the coal industry and should be immediately regulated by the industry itself; otherwise, some governmental body will do the regulating not only for them, but for the entire industry.

[1] From address of John E. Lloyd, president National Retail Coal Merchants' Association. National Coal Merchants Association Addresses. p. 3-8. June 10-12, 1920.

I believe it is the duty of the coal industry to see that coal is properly prepared and of a standard size. Let us charge a price that will give a fair return on our investment and let this price be high enough to cover proper preparation and sizing.

A majority of those engaged in the industry have taken this stand and due credit should be given by the public to those companies who, by their example, have maintained prices on a fair basis.

At one time many of the operators took the position that after they sold their coal it was none of their business at what price it was resold or to whom. The position is, I maintain, absolutely wrong and it is their business to see that no unfair practices are indulged in by those handling the product of their mines.

If jobbers or retailers take advantage of a shortage to charge unfair prices, shipments and sales to them should be stopped.

One of the greatest evils today, and one that causes the consumer the greatest dissatisfaction, is the great variety of prices the retailer is compelled to ask and the uncertainty, in many cases, as to the price of the coal until delivery is made. This, of course, is caused by the endless variety of prices at the mines.

For the protection of the public, some method should be worked out at once to secure uniform prices. Competition is a wonderful thing in theory, but does not always work out in practice. What the consumer wants is coal of a standard size and preparation and a uniform price for coal of the same quality.

With the ever increasing demand for coal, the matter of transportation and distribution is one of the most serious. Methods that have proved satisfactory in the past are no longer practicable. For that reason the present method of distribution should be given careful consideration by the operators and a more fair and equitable plan than the present one put into immediate effect.

The retail distributor is the one to whom the consumer looks for his supply of coal. Under every and all conditions he is expected to carry a stock on hand ready to supply all reasonable demands. His ability to serve the public is greatly reduced, however, if producers and jobbers ship direct to manufacturers for the use of their employees. In the latter case, employees really receive an increase in wages at the expense of the community in which they are located. Where shipments are made direct to consumers who have no siding, a few people are favored at the expense of the many. It is, in fact, giving a rebate to a few users of coal. The railroads formerly gave rebates, but this is now illegal. Why should a few consumers be favored at the expense of the rest of the public?

When coal is sold by either of the above methods, it does not help transportation, nor does it increase the movement of cars; indeed, the chances are it will increase the car shortage, as a consumer cannot release a car as promptly as a retailer, who has the facilities for immediate unloading. The supply for the community has not been increased and the public as a whole has received no benefit. In fact, the methods referred to are uneconomic and unsound in principle as well as in fact.

It has been said that an association such as ours should take no part in any kind of political activity. With this I cannot agree. We owe a duty to the public, as well as to ourselves. We must see that proper men are elected to the positions of responsibility, in both our local, state and Federal governments. Otherwise, how can we expect laws to be passed best suited to the needs of the people and of our business? If business men and business organizations do not take an interest in their government, who, may I ask, will do so? Lincoln has well said: "that government of the people, by the people, for the people, shall not perish from the earth." It seems to me we have a government of the government, by the government, for the government. As Mr. Taylor,

formerly president of the National Coal Association, has said: "There is too much government in business, and not enough business in government." How long could any business exist if it were managed in such an incompetent and extravagant manner as the President and Congress are managing our government for us? The question is—are they managing it for us or for themselves? What bothers them most—efficient government or their political future? How many in Congress, when making a speech, serving on a committee, voting for or against a bill, are broad enough to think first, last, and always—"What is best for our country?" Not many, I am afraid. The thought uppermost in their minds is the effect it will have on the voting at election time.

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